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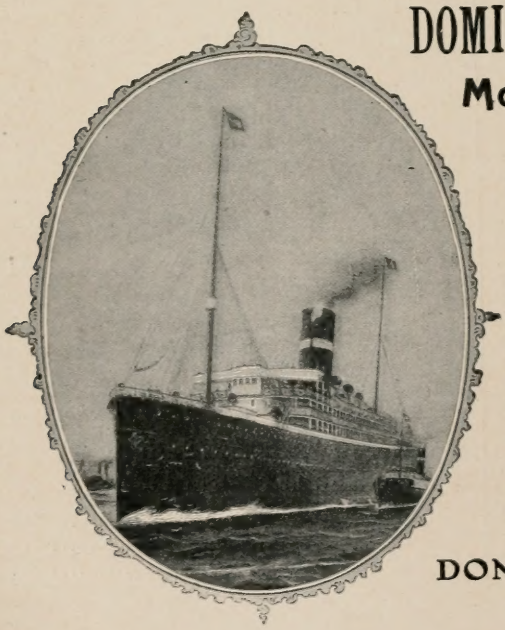

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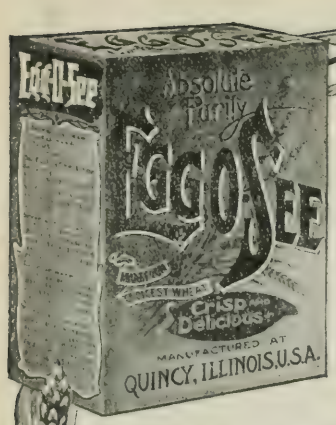

The Doctor's Opinion

is the only authoritative source of information which the laity should consult concerning the nutritive and tissue-building quality of any of the prepared foods now offered to the public. And yet it is a fact that the great mass of the people have obtained their information—or misinformation—almost exclusively from statements made by some clever advertisement writers whose knowledge of dietetics is necessarily limited.

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I have made a chemical analysis of 'Egg-O-See' and have obtained the following results:

	Percent
Moisture	9.73
Proteids	10.43
Fat	2.81
Ash	2.47
Crude Fiber	1.31
Carbohydrate	73.25
	100.00

I have also made an analysis of the ash of 'Egg-O-See' and I find that it contains:

	Percent
Phosphoric acid, anhydride,	29.63
Iron, metallic,	0.483

For the purpose of comparing 'Egg-O-See' with a high grade of Wheat Flour I have analyzed a sample of Grade A, Patent Roller Process Wheat Flour, and I have obtained the following results:

Analysis of Patent Roller Process Wheat Flour.

Grade A.	Percent
Moisture	13.94
Proteids	9.02
Fat	1.51
Ash	0.42
Carbohydrates	75.11
	100.00

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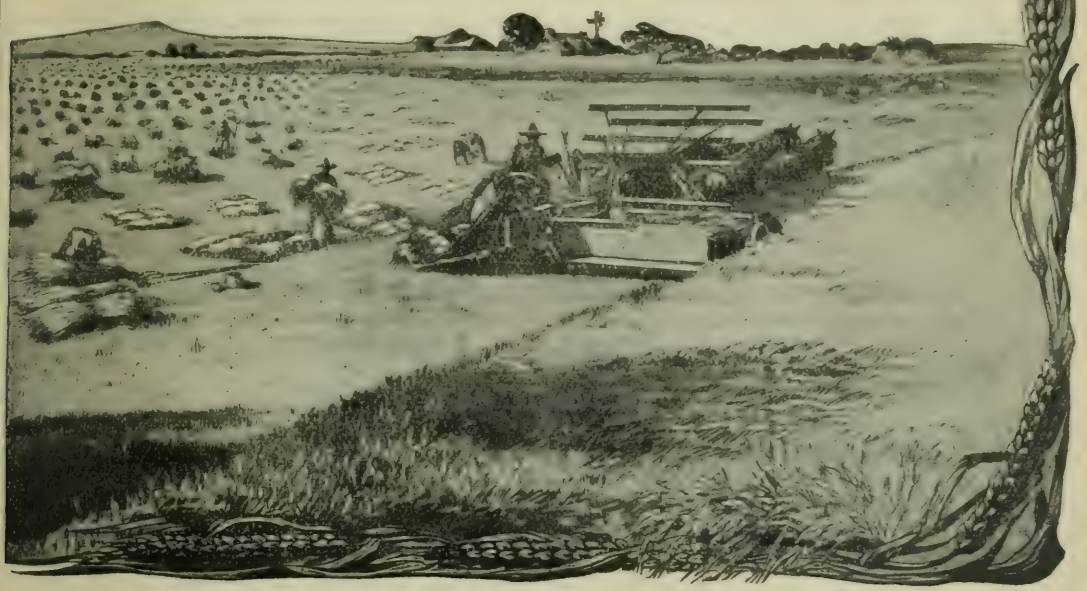
Edward H. Keiser

Professor of Chemistry.



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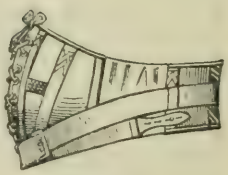

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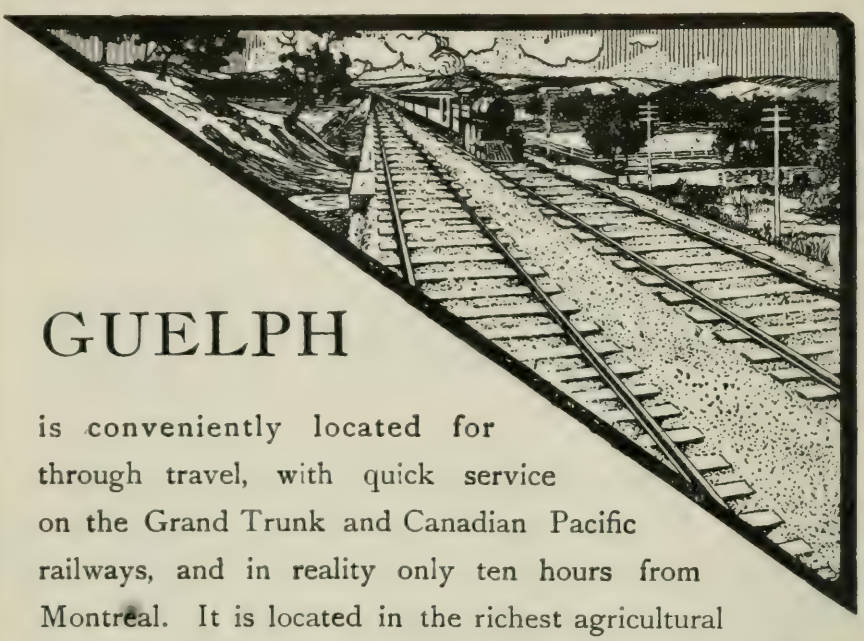

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A PLEA FOR THE NEURASTHENIC.

BY

DAVID ALEXANDER SHIRRES, M.D.,

Professor of Neurology, University of Vermont; Neurologist Montreal General Hospital; Lecturer in Pathology, McGill University, Montreal.

Mr. Chairman, Gentlemen,—

The subject I have chosen to speak upon this morning is, "A Plea for the Neurasthenic."

Generally speaking, such a plea to be brought before medical men, is not warranted, but, as a rule, the individual cases that we know so frequently crop up in the course of the daily practitioner's life, with their aches and complaints, worries and annoyances, are not generally given the due consideration that the knowledge of the condition warrants.

The neurasthenic is the name given to a person suffering from neurasthenia, and this allied with conditions such as hysteria, makes up that group of diseases that are called functional. By this it is meant that the functions of organs are altered, though no gross or tangible change of structure is to be seen macroscopically or microscopically. The characteristic changeableness or variableness of the symptoms lead us to suppose that, on that account, function only is disturbed. Function and nutrition are so closely correlated, that if function be long disturbed, nutrition is bound to suffer. At the onset of these diseases, or during the early stages, we may get a condition which is purely functional in type; yet, if long continued, nutrition is bound to suffer, thereafter producing organic changes.

Some day, when we have a more perfect technique, and higher magnifying microscopes, we may be able to place some of the so-called functional diseases in the organic group.

It is a well established fact that a large percentage, if not all, functional diseases are congenital in origin, due to faulty development in

Read before the Canadian Medical Association, Halifax, August, 1905.

intra-uterine life. The child may grow up, and go through life, without betraying its unstable nervous organism, if no undue strain, which would be an exciting factor, were applied.

Now, let us take up hysteria as one of the most common forms of functional diseases, and one, I think, that we will be able more clearly to understand when we look into the etiology and clinical symptoms manifested in these patients, rather than discuss particularly the etiology, and symptomatology, of neurasthenia. For, if we can obtain a clear perception of what hysteria is, then, other functional diseases will be simplified.

It is very hard indeed, if not impossible, at times, to differentiate between the neurasthenic and the hysterical patient, as both conditions are due to cerebral exhaustion. There are two typical descriptive forms which, in various instances, are sharply defined, and easily diagnosed. In the typical neurasthenic the marked insomnia, inability to concentrate the attention, defective memory, restlessness, fretfulness, irritability of temper, hypersensitiveness, discomforts about the head and neck, exaggeration of the reflexes, feeble pulse of low tension, and the constancy of the above symptoms, the length of time which the disease lasts as well as of the slow progress towards recovery, are diagnostic, as compared to hysteria, where we have marked psychical disturbance, and motor and sensory paralyses, the symptomatology being extremely variable in its nature and constancy.

The typical cases, as described in text-books, are of extremely rare occurrence, though in certain countries, particularly among the Latin races, the typical picture is occasionally met with. On the American continent it is indeed rare. Both diseases are of functional nature, both are congenital in origin, and both affect males and females in about the same proportion. The symptoms of neurasthenia are common in hysteria, and *vice versa.*

Of late years I have had under my care many of these cases, and my sympathies have gone out to the unfortunates who are afflicted with the malady. The layman, and to a large extent, our professional brethren, do not fully appreciate the magnitude of the disorder present in these cases. While gross diseases of the nervous system force themselves upon our attention, and are the cause of a great number of deaths, I do not think I am wrong in stating that the effects of ill health, suffering and incapacity produced by functional diseases are even more serious and far reaching.

Hysteria is defined by Mobius as a condition where ideas control the body, and produce morbid changes in its functions. In the normal

individual the power of the mind over the body has a much greater force in inducing good or bad health than is generally appreciated. The following extracts from eminent authorities show what a vast influence the mind wields over the body.

Dr. William Stokes in his classical work on "Diseases of the Heart,' gives due weight to this factor in the cure of disease, and points out how recovery is often retarded by depressing emotions, and in dealing with those cases of cardiac neuralgia he says that one of the most certain remedies consists in removing from the patient's mind the apprehension that his heart is organically diseased.

Trousseau, in his "Lectures on Clinical Medicine," recalls the famous experiments of Claude Bernard, to show the intimate connexion between the floor of the fourth ventricle, and the development of glycosuria; and that between other cerebral areas, and polyuria, or albuminuria.

He also points out how neuralgia excites the secretions of neighbouring glands; how the passions and intellectual engrossments affect secretion; how mental disturbance will increase micturition; anger modify the lacteal secretion; fear produce diarrhœa; and he impresses the fact that the whole digestive system, including the liver and pancreas, may be affected by the mind.

Graves, too, in his "Clinical Lectures on the Practice of Medicine," enforces the importance of what he terms the "power of moral impressions," in aiding the cure of disease.

Sir James Paget, in his "Lectures on Surgical Pathology," directs special attention to the effect of mind on nutrition, and says, "There is scarcely an organ, the nutrition of which may not be affected by the mind." He cites a very telling case of a patient who consulted him about a tumour in her breast, which she believed to be a cancer. Paget boldly assured her that it was not malignant, and further, that it would speedily disappear. The latter portion of his statement he hardly expected to see fulfilled, but he reports, with apparent surprise, that it began to shrink immediately, without either internal or external therapeutic treatment.

Dr. Henry Maudsley, in dealing with the same point, reminds us of what is often observed by army surgeons, that the excitement of battle frequently prevents a soldier perceiving that he has been shot, or received a sabre cut; such wounded men will often continue fighting until faint from unnoticed loss of blood. Dr. Hack Tuke tells us that "the mere concentration of the mind may excite the action of some parts, and lower that of others."

The above quotations not only show the power which the mind has over the body but also serve to explain the rationale of the treatment that should be employed.

Other well known examples of the influence of mind over body have no doubt, been individually experienced. For instance, we all know how depressing it is to most of us to be told that we look ill, though in perfect health. If the remark be repeated by several acquaintances in succession it will take a strong minded person to prevent his giving way to the belief that his health is really impaired.

Many of the Christian martyrs were so wholly possessed by their faith in a power to protect them, that they bore patiently without suffering the preliminary tortures of the rack and final burning at the stake.

If, then, the brain is so susceptible to suggestion in health, we can understand how much more so this would be in neurasthenic, and more especially in hysterical individuals, where a characteristic feature is that they easily acquire conditions, from their surroundings, and readily act to suggestions from those associated with them.

A knowledge of functional diseases if more widely appreciated would be the means of increasing the size of our individual practice. It is through our neglect in treatment of these cases that Christian Scientists and osteopathists flourish so well in our midst; and, if we do not wake up and show attention to this class of patients, other cases not necessarily neurasthenics may also pass into their hands.

I propose, therefore, to offer to this association a few remarks on this subject, and shall try to show that hysteria is a disease of the central nervous system, and that the patient has little or no voluntary power of preventing or interrupting its course. The disease to the public, and to a certain extent the professional man, is chiefly associated with a condition where the symptoms are largely supposed to be simulated, or at least the idea is entertained to a considerable extent that the patient could prevent the symptoms if he so desired. But this is erroneous, the malady is a real one, and altogether beyond the influence of the patient's will.

It was long supposed to be a disease of females, but of late years we have learned that it affects males very largely, if not to the same extent. The name is derived from an erroneous idea that there is a special connexion between the disease and disorders of the womb which, at one time, was even thought to move about the body, causing the local symptoms. The opinion that the disease is primarily, and chiefly, one of cerebral function is now all but universally held.

Hysteria, besides occurring alone, is frequently associated with general and local diseases, such as tuberculosis, arthritis, and it is not surprising that it still more frequently accompanies organic diseases of the central nervous system. The effect of disease upon one part often produces disturbance in function of another part, and of such disturbances hysterical symptoms are frequently the result. Weir Mitchell well describes it when he says, "The symptoms of real diseases are frequently painted on a hysterical background.'

The hysterical patient may be bright, intellectual and attractive, in general appearance healthy and robust, even stout and florid. The chief peculiarities of the hysterical brain, as differing from the normally acting one are, explosiveness, want of control, and proneness to exhaustion. So that two kinds of phenomena occur, one a too active and uncontrolled nerve discharge, the other paralyses of various kinds, sensory and motor.

The symptomatology of hysteria is due to an exhaustion, or want of sufficient reserve nerve energy in the central nervous system. This is liable to occur in a subject with a congenital defect in his nervous apparatus, due, as before mentioned, to some faulty laying down of the neurones in intra-uterine life, probably caused by some deficiency in the parents, resulting from bad health, over indulgence, syphilis, alcohol, or due to a nervous instability in their systems.

Of a family born to such parents, five may grow up from childhood to middle life, or old age, without showing any marked nerve deficiency, another member, through ill health, accident, mental worry or stress may develop hysteria. I have no doubt that the others, had they been heavily taxed, physically or mentally, would also have shown some defect.

The normally acting, and healthy brain, has a centre where reserve forces are accumulated, and held in readiness, to be called upon when necessary, and also an equable and steady current of nerve force which passes from centre to centre and thereby produces a state of equilibrium and healthy mutual control. It is a well known fact that exhaustion of some regions entails exhaustion on others which have not been in activity at the same time. Intellectual work, for instance, causes brain fatigue, which renders physical work difficult and *vice versa*. This shows that there is a common source of energy upon which the various regions of the cortex draw in active work, and that nerve force can flow freely from one to another.

In hysteria, there seems to be a want of this free flow, and ebb, and a deficiency in the centre where energy is stored.

Clinically this lack of nerve energy is expressed by explosiveness, want of control, and a tendency to exhaustion. These three characteristic symptoms are manifested in the mental peculiarities of the hysterical subject, as well as in the motor and sensory apparatus.

We all know how, when the emotions of these patients are stimulated, they are unable to control them within appropriate limits. Emotions, in a healthy person, initiate muscular movements of various kinds; expressions of joy or sorrow, as the case may be, controlled, however, within appropriate limits, while the same cause of emotion may, in the hysterical subject, reverberate impetuously and unrestrainedly through the motor centres, mingling the natural expressions of joy and sorrow confusedly together, and producing irregular movements of the limbs or even general convulsions. Emotion in other cases may inhibit nerve action, and produce various forms of sensory and motor paralyses.

An instance of the mental neurones inhibiting the motor neurones, even in the healthy individual, may be cited: Let us suppose that two persons are walking along a street. They hear a cry, and see a child falling from a window in the third storey of a house to the street below. One of them rushes forward to try and catch the child, and save it from being crushed against the sidewalk; the other individual, on the moment of hearing the cry, becomes rooted to the spot, unable to move, or even to cry out. The eminent danger to the child produces an inhibitory power over his actions.

As another instance of inhibition, let us suppose a plank is stretched across a stream, the water being only a few inches in depth. Most of us would have no trouble in walking over; but, suppose the following day, we have to cross the stream, and, due to heavy floods in the interval, there is now a raging torrent five or six feet in depth. The majority of us would have to walk over the plank using great care, while others, through fear, or in other words, inhibition, would not have the power to walk across at all. So one can appreciate how, in the hysterical brain, inhibition is more liable to take place, as it is more susceptible to suggestion. On the other hand, sensory and motor paralyses may be due to exhaustion of the cells of the cerebral cortex, instead of being due to inhibition.

It is a characteristic feature of hysterical patients that they are unable, at times, to resist the impulses of inclination. With this is often associated irritability of temper and undue sensitiveness to annoyance, under which the trifling crosses and vexations of daily life become grave troubles. These patients also usually acquire conditions such as rythmical and other spasms from association with persons who are subject

to them. They must be caused by the idea, uncontrolled, giving rise to the same spasm. These are cases of ideational automatism and are of cortical origin.

We are all accustomed to observe how readily a normal person is affected by seeing another person yawning, though it may occur in the early morning, when he is in full vigour. A golf player is also aware of how readily he is influenced by the mistakes of his opponent. These influences are, at times, impossible to control. So again, one can easily understand how an excitable, nervous system like that which is present in the hysterical subject would be apt to acquire a set of conditions which he would be powerless to overcome.

Here let us consider for a moment what are the symptoms of exhaustion in the normal individual. Take, as an instance, a doctor who, through stress of work, has not been in bed for 50 hours. If at the end of that period he be placed under examination, you will find that his memory is defective, and that he is irritable, the small discomforts which he would not notice in his normal state, now becoming serious annoyances. Are you to scold him because his memory is not good, and he is irritable and imaginative? Will it do him good? Certainly not. So we can fully understand how a patient suffering from hysteria or neurasthenia should not be scoffed at or depreciated in any way on account of his deficiencies, both are in the same condition and suffering from nerve exhaustion, the former being mental exhaustion from insufficient repose, the latter the result of congenital deficiency.

Now, let us see what are the motor and sensory disabilities present in these cases of hysteria. Before doing so, let me rapidly and briefly sketch the anatomy, physiology and pathology of the central nervous system.

The central nervous system is made up of neurones, motor and sensory; the motor for motion, the sensory for conveying sensation. In addition to these there are masses of neurones which are especially developed and constituted. These are the neurones of the higher mental centres.

Each neurone consists of a cell body and processes. The dendrites are processes which collect impressions, and carry them to the cell body. The axones are the processes which convey the impulses from the cell bodies. Generally speaking, the axone is a very long process, sometimes traversing the distance of half one's body, while the dendrites are small, and probably only twice the circumference of the cell body. Therefore they are microscopic in character, requiring a medium power for their detection. The cell body is the seat of their vital functions.

The normal neurone, whether motor or sensory, or whether constituting the higher mental centres, to function properly, requires the presence of the following four requisites: (1) stimulation, (2) nourishment, (3) controlling influence, and (4) continuity.

(1) *Nourishment,* of course, is easily understood.

(2) *Stimulation.* By stimulation I mean that impulses must pass from one neurone to another, more or less constantly. In the lowest types of animal life the nervous system is made up of more or less separate and independent units. Stimulation is not so much a factor here, but the higher we go in the scale, the more necessary is stimulation. In man it is absolutely necessary. Changes in the cell body, the result of loss of stimulation were first described by Van Gehutchen, when he ligatured the posterior roots of the spinal cord in monkeys. Within a very limited time, chromolithic changes could be detected in the cell bodies of the anterior horns. Another example is a case of tabes, where the posterior roots are diseased. The anterior horn cells on account of want of the usual stimulation coming through the posterior roots, show certain changes, and this is expressed clinically, by loss of tone in the muscles supplied by the anterior horn cells, and is the cause to a great extent of the loss of the knee jerk in tabetic cases. The same changes can be demonstrated in the cells of the cerebral cortex, when a centre is not called into use, in other words, not stimulated. That particular centre shows defects which, if long continued, may render it more or less useless.

(3) *Controlling Influence.* A neurone to be healthy must be under controlling influence, so that the normal amount of power is allowed to be given out; without this too much may be expended when unnecessary. As an instance to show the controlling influence of a neurone, let us take, for example, a hæmorrhage into the internal capsule destroying the upper motor neurone in that situation. What happens? The extremities of the patient become paretic, also markedly spastic, the latter being an expression of increased tone. The knee jerks are exaggerated, the muscles hypertrophy. This points out that the upper motor neurone regulates and controls the trophic influence of the lower neurone, and, as above stated, when the upper neurone is destroyed we get hypertrophy of the muscles, spastic and paretic conditions, with increased reflexes.

Now, let us take an example showing the controlling influence of the neurones of our higher mental centres. We all know that persons with well balanced minds will enjoy "bon mots," and clever anecdotes with heartiness and laughter, but within the confines of moderation; or, if

visited with trouble, and sorrow, may weep or feel sad, but within bounds. The nervous individual who is suffering from want of control, under the same circumstances, will laugh and cry, mingling the two together. Not only may the stimulation produce excessive sadness or joy, but the stimulation being uncontrolled may spread out, and mingle with the neurones in the neighborhood, shown clinically by marked facial contortions, or even general convulsions.

(4) *Continuity,* of course, is necessary; for, without it, stimulation and controlling influence cannot be carried out.

What changes occur in a neurone that is slowly dying from the result of disease or exhaustion? The cell body being the vital centre, the parts farthest away from that centre will naturally be the first to undergo changes, due to the lowering of the vitality of the cell body. Let us take as a simile, when our general circulation is lowered, due to an enfeebled heart, our fingers and toes are liable to suffer from cold, if the body be exposed to a low temperature, in other words, the circulation is harder to keep moving at those distant parts, as compared with the parts of the body in close proximity to the organ involved. Naturally also in disease or exhaustion of neurones, those with the longest axones are the ones first to suffer, and this can be shown clinically.

To-day, it is more or less universally accepted that hysteria is due to interference with, or involvement of, the cell bodies of the cerebrum. Both hemispheres are involved, as a rule one more than the other, the right being more generally affected. Clinically, we often have hemianæsthesia or hemiplegia, which clearly shows that they are the result of cortical involvement. Other manifestations pointing to the cerebral origin of hysteria are the psychical evidences already discussed. We may have symptoms pointing to involvement of the respiratory centres, which may be slowed or accelerated. So also may the heart's pulsations be affected.

An interesting case of hysteria, where these centres and others were involved, was that of a medical man, whom I was called to see, in consultation with three other physicians. His pulse, for three months before I saw him, had been averaging 150 per minute. His respirations were sometimes accelerated to forty-five per minute, at other times they fell to ten. At no time was there any temperature, nor any symptoms pointing to organic involvement of the heart. I recommended that he should be brought to Montreal, and undergo the Weir Mitchell treatment. Before leaving home the patient was in grave doubts as to whether he would ever reach the hospital alive, as he thought his con-

dition was so serious. Shortly after entrance the pulse began to subside, and with two months' rest the patient made a complete recovery. At the end of this time, I gave him permission to take up his residence in one of the suburbs of this city, so that he would be conveniently situated to come and see me once a week. This morning he paid me a visit. The pulse, respirations and heart on examination were normal. The anæsthesia and concentric contraction of the fields of vision, which were present on entering the hospital, have now completely disappeared. Four months from to-day he is to be allowed to resume his medical practice.

We may have symptoms pointing to involvement of the vaso-dilator and vaso-constrictor centres. This may be due to a direct action on the sympathetic nerves, but not necessarily, for such phenomena can be produced by stimulation of the cortex. It is a frequent observation that, on pricking the anæsthetic cutaneous surface of an hysterical subject, no bleeding occurs. Similarly, local œdema is present in some cases, due probably to dilatation of the blood vessels. Polyuria is a common symptom depending on the dilatation of the renal vessels. Hysterical anuria may occur and last for days, indicating contraction of the blood vessels of the kidneys. Spontaneous hæmorrhages into the skin, or from the stomach or lungs, are likewise due to extreme dilatation of the vessels.

An instance of this condition occurred in a patient some eight months ago. I was called in consultation by the family physician. During a period of two months, the patient had had two hæmorrhages from the stomach, and one from the lungs. As she had shown very marked nervous stigmata during this time, the consultation was suggested. The examination, both by the physician and myself was absolutely negative of organic disease. We concluded that the hæmorrhages were of hysterical origin. She was put under my care so as to undergo the Weir Mitchell treatment at the Montreal General Hospital. After two and a half months had elapsed she was placed in a country home with a nurse, and kept in as restful a state as possible. Her condition has markedly improved. I have no doubt that within a couple of months from now, she will have regained a state of health that she has not enjoyed for years.

Other examples of involvement of the higher mental centres of hysterical patients are frequently noted, such as concentric contraction of the field of vision, amaurosis, loss of sense of smell, taste, hearing.

At this point of the paper I think it would be well to take up the differential diagnosis between a functional and organic paralysis. Let

us first deal with the sensory affections, and later with the motor. In this way we shall be better able to appreciate the etiology of the condition.

The most fertile source for the production of organic hemianæsthesia is hæmorrhage into the internal capsule. In hysteria, the patient is not conscious of the anæsthesia present, while in organic trouble he readily appreciates the loss. In the first instance the disease affects the cell bodies themselves, while, in the organic, the cell bodies are not involved, but the axones are, and at some distance from it, with the result that, the cell bodies being uninjured, they are aware of not receiving the usual stimuli. As a comparison, one might mention the difference between a general and local anæsthetic. If local anæsthesia was produced in my leg, I should at once have the impression that my leg was dead; while, if put under a general anæsthetic, I would, of course, not be aware of the condition present.

In the hysterical subject hemianæsthesia, pure and simple, is a very common symptom. Hemianæsthesia alone, in organic disease seldom, if ever occurs, because when a lesion takes place in the internal capsule where the sensory fibres are so closely associated with the motor fibres anteriorly, and the fibres of the eye behind, a pure sensory paralysis is impossible. The presence of motor involvement, homonymous hemianopsia and hemianæsthesia are a frequent occurrence in organic diseases for the above reasons. In fact, either a motor enfeeblement plus anæsthesia, or homonymous hemianopsia and anæsthesia are sure to be evident in those diseases.

Another differential sensory disturbance in hysteria is the characteristic islets of anæsthesia throughout the body. Their position at once shows that the anæsthesia is not due to peripheral involvement, as it is not in the course of any nerve supply, nor due to involvement of the cord. The explanation is that the sensory fibres as they leave the internal capsule on their way upwards, subdivide, and end separately in the cortex. And, therefore, small cortical areas if functionally depressed would give rise to limited areas of sensory deficiency in the skin.

Another form is the glove and stocking anæsthesiæ in the extremities. This also cannot be due to peripheral disease from its distribution. In a case reported by Pitres, where the patient was suffering from anæsthesia of the arm, he exposed the ulnar nerve, and upon pricking it with a sharp instrument, no sensation was present, yet the muscles connected with the nerve contracted, showing that conductivity must have been present, as the motor impulses were carried. This case again shows that the sensory anæsthesiæ must be of cortical origin.

It is also of interest in the ansæthesiæ of hysterical subjects that we have, not only complete forms of anæsthesia, but may have incomplete forms, as, for instance, analgesia, or, loss of pain sensations only, or we may have only loss to heat, or electro anæsthesia, or alterations in the muscle sense. Tactile sense is the last to go, and never disappears alone.

Besides anæsthesia of the skin, we may have anæsthesia of the mucous membranes, or we may have hyperæsthesia taking the place of anæsthesia in the skin and mucous membranes. The bones and joints may also be involved in like manner. Another form of sensory disturbances which is sometimes very distressing is paresthesia.

A patient in my care at the present time attending the neurological out-door clinic of the Montreal General Hospital, whom I saw in consultation with Dr. Evans three months ago, received a severe shock from lightning during a thunder-storm. This was followed by insomnia, headache and marked nerve depression. Two weeks later, she began to complain of an abnormal feeling as if her face were all broken out with an eruption. The hands and feet, at times, had the same feeling. The mental impression was so strong, that if her casual glance happened to rest on her hands or feet, she became frightened at their abnormal appearance. When the feelings of discomfort in the face were troubling her, examination of herself in the looking glass would not convince her that the skin was normal. The patient's mother and sisters would tell her that there was no visible alteration to them in the extremities or face. This annoyed her very much. Two months ago she came under my care. At that time she had improved considerably in respect of her sleeping power, and other symptoms of the nervous break-down; still the discomfort in her face and extremities were as real as ever.

This patient, Miss T., is a bright, intelligent, active young woman, and in no way does she look the nervous invalid she is. After several conversations, I was able to partly convince her that her face and extremities were perfectly normal, and that she was suffering from a purely mental condition. At my suggestion she refrained from looking at herself in the mirror for over a month, and can now reasonably deduct and understand the cause of her discomfort. As a means of helping the condition, I have put her into the hypnotic state, and have suggested the disappearance of her trouble. Results have been very satisfactory.

In discussing the dissociation of the different sensations, pain, heat, cold, in connexion with the anæsthesiæ of the hysterical subject, I would

just mention the close analogy this dissociation of sensation has to the alteration, dissociation or exclusion of the colour fields that occur in these cases. Therefore, understanding that these conditions occur, and can be demonstrated clinically, one can appreciate how exclusion of certain functions in the higher mental centres might also occur, such as complete absence of knowledge of a language, in which the patients were at one time fully versed. Or it may affect the visual memories of the faces of certain persons, or the memory of certain places. There may be the characteristic condition so frequently described as "dual existence."

I had the pleasure of seeing an interesting case in Boston last autumn, while attending a meeting of the neurologist's club in Dr. Prince's house. The patient, a lady of bright intelligence and refined appearance, was shown to us as an example of a condition somewhat resembling a dual existence. She was suffering from synovitis of the right knee, causing enlargement of the joint, and associated with considerable pain. Dr. Prince pointed out that the patient's story of the origin and course of her joint trouble, when given verbally, was quite at variance with the report when written by a pen. When asked to explain this she stated that she had no control over the pen, and that she was compelled in some way to write as she did. To test this Dr. Prince had her translate a selection from a German work on medicine. Her knowledge of German was extremely limited, and she had to spell out the words, and with difficulty arrived at the proper enunciation. While doing this a pen was placed into her hand and she was requested to answer questions in connexion with her knee trouble. This she did in a free and easy manner, never hesitating a moment in writing out long sentences that were necessary for the description of her condition; it being done while she was struggling over the translation of the German work. I may here state that the patient had been under Dr. Prince's care for a number of years, and had shown many well marked manifestations of hysteria on different occasions.

Motion. The motor paralysis of hysteria differs from that of organic, in that the leg is the most involved, the arm less, and the face not at all; while in organic paralysis the arm is most involved, the face next in order, and the leg least of all. The reason for the former is that, in hysteria, the condition is one of nerve exhaustion or paresis of the vital centres. The parts of the neurones farthest away from their centres are the ones most involved. For, nerve force, generated in the cells of the cortex, would only be propagated to the distant muscles of the leg, if considerable, though it might, if far less, reach the muscles

of the face and tongue. In organic diseases the arm is the most involved. The reason why the leg is most affected is that the parts which are usually associated in action on the two sides of the body are intimately connected in their nerve supply, so that the centres can supplement each other, should one side be paralyzed. In cases of hysteria there are evidences to show that, though one hemisphere may be affected so as to produce hemiplegia, the other is also affected, but in a lesser degree, and cannot make good the defect of its fellow.

The above differential diagnosis is simple when the clinical signs are so sharply defined, but one in practice frequently comes upon cases of both organic and functional diseases, that do not altogether agree with the above. Many authorities state that the following symptoms, spastic condition of the extremity or extremities, increased knee jerks, ankle clonus, rectus clonus, Babinski's sign, Oppenhemi's sign, are diagnostic of organic disease of the upper motor neurones.

In my experiences I have found a few of those, and sometimes all of them, present in cases of pure hysteria. The reason for this, I think, is that in cases where the neurones are suffering from an extreme exhaustion, they would show clinically the same paralytic symptoms as would organic disease destroying the functions of those sources. Only, in the cases of hysteria the variableness of those symptoms would aid in making a differential diagnosis, from an organic. But again, we often come across cases of hysteria which do not adhere to the usual *rôle* in being variable, but are more or less persistent, at least for a month or longer. In these cases we find great difficulty in making a diagnosis.

In the healthy individual, with a normally stable nervous system, there is, as already mentioned, an equable current of nerve force passing from centre to centre, producing a state of equilibrium, and healthy mutual control. Not only is this present, but there seems to be a reserve storehouse of energy, from which force can be drawn when necessary. If the individual is called upon to stand a severe and prolonged mental, and nervous strain, he is able to do so for a considerable time without manifesting many symptoms of exhaustion. In the neurasthenic and hysterical individual there does not seem to be present the storehouse of energy, or free flow and ebb of nerve force, passing from centre to centre. The reason is because the patient does not seem to be able to bank up any reserve energy, but lives more or less like some speculators on a margin. When a severe strain occurs, a very limited time elapses before fatigue becomes manifest, due to absence of this nerve force of energy and equable, steady nerve current,

with the result that the normal equilibrium and mutual control is upset, and this is followed by symptoms of explosiveness, and a tendency to exhaustion in the central nervous system, clinically expressed by psychical, motor and sensory symptoms.

We are all aware of the fact that when a powerful dray horse is drawing a load up a steep incline, it will pull with a more or less steady force till it reaches the top, while another horse of less muscular build, though it may be of more highly bred character, in drawing the load begins to feel, when but half way up the hill, that it is too heavy for him. Being of a willing disposition he will make vain attempts to reach the top, as shown by his suddenly throwing himself into his collar every now and again, in this manner producing spasmodic attempts to reach the top. The jerkings may finally cause a break down, due to the giving way of some part of the harness. In the same way, nervous patients who are, as a rule, ambitious and anxious to hold their social and other positions in the world suffer from the "ups and downs" in their physical condition, in trying to carry this out. Their attempts to keep up with their competitors sometimes results disastrously. As already pointed out, the exhaustion of some regions in the brain entails exhaustion upon others which have not been in activity at the same time.

Again, in hysteria some centres retain their usual activity, while others are inactive. It is usual, however, for the one area to affect the whole system, and this goes to show that the various nerve centres draw their force from a common supply. If the supply of energy is constant in its production, that would mean constant supply in all the centres. These centres are bound together so as to produce physiological equilibrium, and constant power would imply constant control of one by the other.

The hysterical brain shows no anatomical alterations to distinguish it from the healthy one. The difference is physiological. It is more excitable, the nerve discharge being violent, and more easily produced, less under control. The nerve force ebbs and flows along the centres in such a way that certain parts are left high and dry, so to say, while others are flooded. These conditions are all liable to rapid fluctuations, so that the symptoms appear and disappear in a remarkable manner.

Those who wish to go more fully into this subject should read the Presidential Address, given by Dr. Sharkey, before the Neurological Society of the United Kingdom, February, 1904, on the above subject.

Treatment. In discussing the treatment I shall simply give you a rapid sketch of the outline, dwelling on some parts more than others.

I hope in a future lecture to take up the treatment more in detail.

The main factor in the treatment of the disease is rest, mental and physical. The more pronouncedly typical of hysteria is the case, the more necessary is it to have isolation and complete rest; while in neurasthenia, rest, associated with a certain amount of cheerful surroundings and pleasurable occupation, is advisable. The patient, as before mentioned, may be bright and active, and he may be healthy and robust in appearance. For that reason his friends cannot understand, nor are they inclined to be tolerant of, one who does not show any tangible local disease, or notable derangement of function, but is full of complaints, professing incapacity to do many things. They think the patient is shirking his work, and duties, and even pleasures in which he could well take his share. But the incapacity is very real, and if the relatives or physicians do not fully appreciate this, but urge the patient to throw aside his trouble and try to perform the duties he is unable for, the kindly relations between them will not only be upset, but the malady increased. Herein lies the value of isolating those patients from their friends and relatives.

As we saw in the early part of this paper, neurasthenia or hysteria may occur alone; yet it is also frequently an accompaniment of organic disease, such as tuberculosis and rheumatism. Being so, it is not hard to understand that, with organic involvement of the nervous system, functional diseases are still present in a much larger proportion.. We also saw that functional disease is largely congenital, this going to show that the nervous individual is abnormal in the respect that he is more easily fatigued and, therefore, more liable to encroachment of organic disease. If function, therefore, be long disturbed, nutrition will be subsequently affected; and if this is so, we can see the nucleus or beginning of true alteration taking place. Bearing this in mind, we may be able to obviate many serious conditions in patients who come under our care.

Last week, while paying a visit to the neurological clinic at the Massachusetts General Hospital, in Boston, under the care of Dr. Walton, I saw a number of tabetics being treated after the method recommended by Frankel. I enquired whether he was obtaining good results from the treatment. He said that many of the patients had become considerably improved. No doubt the improvement was, in some cases at any rate, largely due to relief of some of the functional troubles present in tabetic cases. In connexion with functional troubles associated with tabes, I remember well Prof. David Ferrier, of London, relating to me some two years ago, the history of a patient suffering with tabes dorsalis.

A young man of forty-four had been affected with tabes for six years. Specific disease had preceded the onset by some four years. The course of the trouble for the first two years was slowly progressive. He had been treated at different times, by Sir William Gowers and Dr. Buzzard of London, and Marie and Dejerine of Paris, but the disease had steadily progressed, till, at the end of the fourth year of the trouble, he had become more or less paraplegic and bedridden. When it was necessary for him to go out and enjoy the fresh air, he had to be taken in a bath chair or carriage.

On one occasion while returning from the park, in his bath chair, he suddenly remembered that he had invited some friends to dine that evening, but had forgotten to order cigars. He requested his manservant to leave him at the tradesman's entrance to the flats, where he was residing, and run round to the neighbouring block for the cigars. Ten minutes should have been sufficient for this, but twenty minutes elapsed, without a reappearance of his attendant. Becoming annoyed at the delay, and having been left alone so long, he finally decided to try and get up to his room unaided. With great difficulty he managed to get out of the bath chair and crawled along by holding on to the different neighbouring objects, and in this manner reached the elevator. Fortunately the elevator was on the level of the basement, the attendant being on the entrance floor above. The patient after considerable difficulty managed to seat himself on the elevator and was in the act of drawing his legs in when the lift started to ascend in response to a call. Due to this unexpected occurrence, the patient momentarily became paralyzed, so that he could not move his legs at all. Up went the elevator, and the patient saw that he would be crushed to death unless he became able to draw his legs in, or throw himself to the floor of the basement. He decided that the latter would be the best procedure, even though he broke his legs in so doing. He threw himself off and landed upon his feet. From that day he has been able to walk. Of course he is suffering from tabes still, and has to use a stick, but his paraplegic condition was largely one of functional type. Had this accident not occurred, probably the patient's disease would have gone on advancing. His ability to move about and exercise himself, and the good results he was able to derive, mentally and physically, from mingling with others, certainly helped him considerably. Confinement to his couch, and the absence of social intercourse would have reacted on his physical condition, and the disease would in all likelihood have gone on progressing. Such instances go to show how advisable it is to pay

due attention to functional disturbances, either when alone, or associated with organic disease.

In cases where hysterical symptoms are well marked, the method of treatment recommended by Weir Mitchell is of great value. In this the treatment consists mainly of isolation, massage, electricity and good feeding. One of the most important points in the treatment of these cases is the selection of the nurse, who is to take charge of the patient. It is absolutely necessary that the two make suitable companions. If the first nurse is not suitable, in that the two are unhappy together, she must be discharged, and the right one found. No nurse should resent being removed on such a charge for such a reason. No one gets on smoothly with every one they chance to meet. One sees the effects upon normal healthy people, of constant association with an uncongenial companion, but under such conditions the person can at least be relieved of the companionship for longer or shorter periods of the day. If the hysterical person is made to live with a nurse whom she does not care about, or even dislikes, she cannot escape from her, and the result will be disastrous.

I am in the habit of considering, as far as possible, the character of every one who comes into contact with hysterical patients, knowing full well that personal influence plays a most important part in their recovery. This is the natural and healthy form of suggestion.

Another important point in the treatment of these cases is that the medical man shall fully understand the nature of the patient's discomforts, so that he can meet him more than half way in being able to describe his ailment, when the patient seeks his aid. No hurried visit or signs of impatience in listening to the patient's story must ever be shown. A clearly expressed explanation of the cause and effects of the trouble will greatly aid the patient inasmuch as he will feel that his case is understood. A feeling of absolute confidence in the medical attendant is of unlimited value.

The quotations of eminent men given in the early part of my paper went to show that the mind in health has a powerful effect on the body; that impressions may increase, diminish or otherwise modify secretion, promoting or retarding recovery, and obliterating or exaggerating pain. Is it not reasonable to suppose that hysterical patients who, we have seen, are very impressionable and readily acted upon by suggestion, will respond to healthful surroundings and congenial companions, placing confidence in the medical adviser and in those who are attending upon them?

As to drugs, one should commence with indifferent and mild remedies. Tonics are advisable. Valerian and assafetida are in some cases very valuable. Bromides have to be very carefully used, as they are liable to increase rather than diminish the exhaustion present. One has to treat the symptoms as they arise, as, for instance, the use of counter-irritation in some cases of local spasms; ice bags, cold douches, etc., to relieve headache. The most of our remedies lose their efficiency after a time, and new methods constantly be used to win the necessary psychic influence.

CHOREA IN A CHILD TWO YEARS OF AGE.

BY

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The patient was a female child two years and three weeks old. Up to the early part of last summer she was in perfect health, breast fed and well developed. Her parents are of neurotic disposition and an aunt is an epileptic. In June a rash appeared upon the child's abdomen and thighs with a slight elevation of temperature. Scarlet fever was suspected, but the throat and tongue were clean, and it was looked upon as an erythema from indigestion. The following day, after exposure in an open car, she was noticed to have her ankles and hands swollen, with a good deal of pain, fever and inability to walk. Her physician saw her and made a diagnosis of rheumatic arthritis and the remedies prescribed had a good effect. Within a month after this attack she was seen by another physician, who found a cardiac lesion and he advised the parents to take the child to the country. On July 24th, whilst there, the child developed swelling, redness, and pain in the ankles and wrists with fever.

She was brought to the city and I saw her for the first time. There were well-marked rheumatic symptoms and a regurgitant mitral murmur. Under salicylates and the application of lead and opium the arthritis subsided, leaving marked anæmia and muscular weakness. A week later the child developed decided choeric symptoms. She was peevish and irritable. The choreic spasms affected principally the tongue, mouth, neck, arms and lips, and later the trunk muscles were implicated. They were of the usual purposeless character and the child was unable to walk or feed itself. The cardiac lesion remained unaltered.

Absolute isolation in a large, bright, airy room with a patient nurse was instituted. A mixture of bromide of potash and dialysed iron was given three times daily with five grains of chloral hydrate at night and plenty of lithia water. In a month the child recovered perfectly, and the anæmia disappeared. She has been free from all symptoms for the past three months though the cadiac condition has remained unchanged.

The points of interest are, first, the tender age of the patient. Risien Russell says it is rare to see chorea before the fifth year. Osler found the age limit lower in America: it was rare before the fourth year, and extremely rare before the third year,

Secondly, the relationship between chorea, rheumatism, and endocarditis. The antecedent rheumatic history is clear, and it is also plain that the endocarditis proceeded the chorea. Albutt states that in very few cases the endocarditis precedes the chorea, but this case would appear to support the discarded view that chorea was due to emboli consequent upon endocarditis. It also upholds the view that the same infective agent is at work in these three diseases as other etiological causes for the chorea could be eliminated.

DEFICIENT HUMIDITY OF THE ATMOSPHERE AND ITS EFFECTS UPON THE RESPIRATORY TRACT.

BY

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The scope of this short paper embraces a subject relating chiefly to the ventilation of dwellings, but involving, in a minor degree, the heating of the same—viz.: the Relative Humidity of the Air, as commonly supplied to ordinary dwelling or sleeping rooms.

Along with my observations on relative humidity, I shall have to quote a few chemical analyses of the air, taken at the same time, but these chemical results I shall endeavour to render in their simplest form, in order that they may not obscure the main argument.

During the winter time, in this country, I am safe in stating that most houses are kept "comfortably warm" inside. In nearly all these instances the air, though warm, is very dry—in other words, the relative humidity is low. This condition of affairs, I maintain, is distinctly deleterious and has a very marked effect upon the human organism—one which, I am sure, has always been overlooked in the greater part.

Read before the Montreal Medico-Chirurgical Society 15th Dec. 1905.

It is answerable, in the first place, directly for a condition of hyperæmia of the mucous membrane lining the respiratory passages, chiefly that of the nose and pharynx.

Secondly, the importance of this result cannot be overestimated, for its bearings are very far reaching in their effects. Let me cite to you, as an instance, a disease in which everyone at the present moment is deeply interested, viz., pulmonary tuberculosis.

I need not point out to this assembly of medical gentlemen that, in the very early stages of pulmonary tuberculosis, the hyperæmic condition, associated with the acute congestion present, is greatly increased by the irritation due to a dry atmosphere.

That being an acknowledged fact, surely the dry atmospheric conditions, already referred to as prevailing in most dwellings, must be classed or designated as insanitary, and they must exert a very harmful influence in cases of pulmonary tuberculosis.

The same line of reasoning applies with equal force to many pulmonary diseases, *e.g.*, acute bronchitis, pneumonia, asthma, etc., etc.

The subject first attracted my attention on account of my own personal experiences. When I first came to Canada, it chanced to be winter time. During that same winter I suffered greatly from congestion of the nose and throat, and to a less extent of the bronchial passages. This condition was always most noticeable after a prolonged stay indoors. By keeping my windows open, or going outdoors I could obtain speedy relief. On thinking the matter over, I naturally jumped to the conclusion that it was probably due to vitiated atmosphere in the quarters which I occupied. I made most careful chemical examination of the air in the rooms, but found that there was nothing to note beyond a little excess of carbon dioxide in it—certainly not enough to warrant such symptoms. The amount found was .07 per cent.

I had proof of this conclusion in the conditions prevailing in the place where I spent most of the day. Here the chemical analyses of the air often showed as much as .08—.09 per cent CO_2. Under these conditions I never suffered any discomfort like that already described. Evidently I had to search for some other cause.

I next turned my attention to the relative humidity of the air, and here the results were distinctly surprising.

The accompanying tables will show you extremely well the results of my observations.

Before referring to the tables, let me draw your attention to the well known fact that, given a certain quantity of air at a definite temperature, containing an amount of moisture sufficient to saturate it—when-

ever you warm that same air, the moisture contained therein is no longer sufficient to saturate it, but it is capable of taking up some more water vapour before saturation point is reached. This is another way of saying that whenever air containing moisture is warmed the relative humidity is lessened.

The term relative humidity being always used to express the amount of moisture actually present in the air, as a percentage of the amount necessary to completely saturate it, at any given temperature.

Saturated air is unbearable, and too dry air is very unpleasant. The best and most comfortable condition is where the relative humidity is about 70—75 per cent.

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Average rel. humidity....	87·8	86·7	79·2	78·1	79·2	80·3
Average temp. (indoor) ..	64°	64°	65°	66°	66°	65°
Average rel. humidity (indoor)—windows closed.	58	53	46	41	42	45
Average rel. humidity (indoor)—windows open..	66	61	58	57	57	58

	N	O	CO_2
Average composition outside air in percentage	79	20·96	·04
Average composition indoor air per cent.	79	20·94	·06

Turning now to the tables, you will notice how constant the indoor temperature is on the average. This is as it should be, but you must at the same time bear in mind what an enormous difference this entails when the temperature outdoors is 0° F., or many degrees below that point, and what a change in the relative humidity of the air this great difference in temperatures involves.

During the coldest months the relative humidity indoors and the indoor temperature keep fairly regularly hand in hand.

During the months of October and November this relationship is not by any means constant; this is because the furnaces are usually not in full swing until the end of the latter month, and, consequently, a great deal of outside air, in an unaltered state, finds its way into the house or dwelling. The most important figures on the table are those relating to the relative humidity indoors (windows closed). Compare these with the relative humidity of the outside air, and also with the optimum 75 per cent. which we have already mentioned.

The influence of open windows, admitting outside air direct, upon this series of observations, is very marked—the relative humidity at once goes up, and more nearly approaches that of the outside air, which in Montreal is fairly constant, averaging about 75—80 per cent.

Reverting to the series relative humidity indoors (windows closed), I would call your attention to the enormous differences between these figures and those pertaining to the humidity outdoors—especially during the months of December, January, February and March. These differences show a deficit in some cases of 50 per cent. in the moisture contained in the air indoors. Now I am sure it will be conceded to be a great strain upon the membranes lining the respiratory passages, whenever a sudden transition is made from 80 per cent. moisture to 40 per cent.

As a logical deduction it follows that the higher the indoor temperature, under these closed conditions, the lower will be the relative humidity, and consequently, the greater will be the irritation to the respiratory mucous membranes.

In a few houses I have noticed an average temperature of 75° F.

The lowest relative humidity which I possess is 35.8 per cent.—but I feel certain that lower records are to be found.

The points brought out in studying the tables will explain why any factor causing an increase of the relative humidity in a very dry atmosphere will be the means of affording relief, and ameliorating the condition of irritation of the respiratory mucous membranes. Having experimented on myself, so to speak, I next endeavoured to find similar cases, and being tremendously handicapped in this sense—not having any patients—I had to wait a considerable time.

Amongst my friends I encountered a fair number of experiences similar to my own. I was much struck by the points of likeness in their various descriptions of their particular symptoms.

"Stuffiness of the nose and throat" was a term very commonly applied. "A feeling of tension between the eyes"—(evidently congestion

in the frontal sinus)—also "irritation spreading through to the ears," were descriptions given by not a few.

In several of these instances I took samples of air from the rooms occupied by these individuals, and at the same time made observations on the relative humidity.

In all cases I found the carbon dioxide very little, if at all, above the normal—the other chemical constituents perfectly in keeping with good air,—but in every single instance the relative humidity was low—generally about 40 per cent.—never exceeding 50 per cent.

Just lately I was asked to inspect a house wherein there were five children (three boys and two girls) with a very interesting history.

On coming into town from the country, where they had been spending the summer, the boys soon after began to lose tone and develop "coughs"—especially the eldest boy, aged 10 years. On examination these boys showed a very marked condition of chronic hyperæmia of the nasal mucous membranes—the appearances such as are usually described as "spongy."

Curiously enough, coupled with this condition was a typical chronic pharyngitis; most noticeable in the eldest boy.

Examination of the boy's chest revealed nothing abnormal.

The little girls did not suffer in any way. During my inspection I was informed that the window in the girls' bedroom was usually left open all night, but that those in the boys' rooms were not. The ventilation of the house generally was very deficient.

On taking observations, I found the usual lowering of the relative humidity to a marked degree—average 40 per cent. (minimum 38 per cent.)—in the boys' rooms. In the girls' room it averaged 55 per cent.

Gas was used for lighting purposes in the house, and knowing that the quality of this commodity is not particularly good, I thought this might have something to do with the matter; but here again I could not bring forward any analytical data to support such a conclusion.

I recommended that the windows in the boys' room be left open a little all night, and a little moisture supplied to the room—the results were marvellous. The boys commenced to improve forthwith and are now quite well.

I think this is fair proof that I had hit the right nail on the head. I am particularly anxious for you to have the opinion of Dr. Birkett, as he holds very decided views upon the subject, and his large experience amongst cases of this description must make his opinion extremely valuable to us.

In conclusion, I will venture to put forward the statement that this condition of excessive dryness of the atmosphere, in houses, is a large factor in the causation of many affections of the naso-pharynx in children,—a general chronic hyperæmia of the nasal mucous membranes—sometimes leading to adenoid growths and catarrhal conditions of the Eustachian tubes.

Looking a little further ahead, without pushing the argument too far, with reference to pulmonary diseases, may the suggestion not be put forwards that, if a very dry atmosphere exerts a very deleterious effect in those cases in which acute congestion of the lungs exists, this same unhygienic condition may be a powerful predisposing or causative factor in the normal body as regards the aetiology of these diseases? I would not wish to be misunderstood in the way of claiming that this is the *only* factor, and that some other deleterious products in the atmosphere, due to bad ventilation, do not produce harmful effects. I simply wish to emphasize the fact that this dryness of the atmosphere is a very potent factor.

In the cases I have cited to you, I think we may safely eliminate any chemical constituents in the air, owing to bad ventilation, as being the chief causes of the disturbances mentioned. The question of heat alone may be dismissed also, for we all know that this cannot, by itself, produce symptoms like those I have brought before you.

Finally, I should like to be placed on record as holding very decided views upon catarrhal affections of the mucous membranes—especially those of the respiratory and gastro-intestinal tracts—being due to climatic conditions.

I know for a certainty that in this, and some other countries, many persons suffer from intestinal inflammations, which are undoubtedly due to climatic causes. I can show that there is no question of it being due to "microbic" agencies. In this connection I have a very shrewd suspicion that our well known friend "appendicitis" is primarily due to similar causes—but all this is somewhat outside the scope of this paper. However, I hope I have opened up a subject which will afford grounds for discussion, and that some of the members present will give their experiences and observations, whether for or against my contentions.

THE COMPOSITION OF CYSTIN CALCULI.

BY

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The study of cystinuria has recently come into importance through the work of Loewy and Neuberg,[1] and of Alsberg and Folin.[2]

A little over a year ago Loewy and Neuberg published the results of an investigation of cystinuria, which started with the assumption that as cystin itself is an amino acid, the metabolic disturbance taking place must be in general a disturbance of amino acid character.

In the investigation of a case of cystinuria, they were, however, unable to demonstrate the presence of either leucin or tyrosin, the amino acids most commonly associated with the urine. On feeding amino acids in the pure condition by the mouth, tyrosin and aspartic acid were eliminated by the kidneys, although under normal conditions these acids are changed to urea and other compounds on passing through the organism.[3]

From this they concluded that the breaking down of protein substances in the intestine did not proceed so far as the amino acids above referred to, else it would be impossible to understand how amino acids fed by the mouth should behave differently from those produced in vivo.

Their engaging theory has not received any experimental confirmation outside that furnished by themselves, and certain other cases of cystinuria subsequently examined by Alsberg and Folin, by Simon,[4] and by ourselves [5] have failed in certain respects to substantiate their findings.

In the course of their investigation a circumstance of great scientific curiosity developed. Cystin, according to the recent researches of Friedmann [6] and others,[7] is a diamino-dithio-dilactic acid, having the sulfur atoms which connect the two lactic acid groups in the β position, with the amino groups in the α position. Produced in the hydrolysis of proteins, and as seen in the usual cases of cystinuria, it forms hexagonal plates which agree in every particular with the classical description assigned to this substance.

As is well known, on feeding cystin to humans or to dogs under normal conditions the substance is almost completely transformed by oxidation into sulfates.[8] No cystin appears as such in the urine. In accordance with the views expressed by Loewy and Neuberg it should be eliminated without oxidation in the urine. Accordingly cystin, prepared from keratin, was fed to the cystinuric, and, as was expected, the whole of the cystin fed reappeared quantitatively in the urine.

In the possession of Loewy and Neuberg was a calculus which gave the chemical reactions for cystin, but which did not, apparently, have

the power of six-sided crystallization typical for this substance. It was suspected that the calculus cystin might be the second modification having the amino groups in the β position and the sulfur bridge in the α position. If this were so, the calculus cystin would have an entirely different configuration from the protein cystin itself and also from the cystin found in the urine, both of which have been considered to be identical. It might also be suspected that the physiological behaviour of the calculus cystin might be different, and that on feeding, the cystinuric might have the capacity to oxidize this form of cystin to sulfates, a property which he lacked with the protein cystin. The calculus was therefore fed to the patient, and in absolute variance with the behaviour of protein cystin, the cystin of the calculus was completely transformed to sulfates.

Why the cystin calculus differed from the cystin eliminated in cystinuria was left unexplained.

Could the experiments be verified, it would tend to depose the amino acids from the very prominent position which they had heretofore held in theories of metabolism.

The experiments shortly referred to above are given with such circumstance that it is almost impossible to conceive that Loewy and Neuberg were in error, and yet, no one since has been able to confirm, their results, either as to the peculiar behaviour of a cystinuric to amino acids, nor has a cystin calculus been found corresponding to the singular one described by them.[9]

It has been suggested that the calculus of Loewy and Neuberg contained tyrosin, and that in the mixture of these two substances these investigators mistook the acicular crystals of tyrosin for an aberrant form of cystin.

In the course of a recent visit to Montreal, one of us had the opportunity of examining the cystin calculi in the Museum of the Medical College of McGill University. It is our desire to express our thanks to Professor J. G. Adami and to Dr. M. E Abbott for placing this valuable material at our disposal. The collection of cystin calculi is an unusually extensive one. Under it were grouped eight cases, two of which, however, were found not to be cystin.

The following are the case reports, and the results of the investigation. For examination, the filings of the whole face of a calculus were dissolved in dilute ammonium hydroxid, and allowed to evaporate spontaneously on a microscopic slide. The residue was observed under the microscope. The presence of tyrosin was tested for by Millon's reagent. The numbers given are those of the Museum.

B. 1. No. 53, Book III.—Pale, waxy, white calculus. Knobbed and dumb-bell shaped. 30 mm. by 18 mm. No weight. Seems to be fairly homogenous. Lateral operation. Male, 18. Roddick.

Completely hexagonal cystin. No tyrosin.

B. 2. No. 57, Book III.—Large, flat, pebble-shaped calculus, 38 mm. by 26 mm., by 14 mm. Weight 26.9 grams. White, waxy, mulberry surface. Rough. Distinctly crystalline on section. Has the same brown colour, deeper towards the centre as B. 1. Lateral operation. Male, 33. Fenwick, 1873.

Completely hexagonal cystin. No tyrosin.

B. 3. No. 3, Book III.—Set of eight small calculi. About 3-4 mm. Total weight 2 grams. Grayish white, smooth, irregular in shape. Some facetting. Passed. Male, 29. Fenwick.

Completely hexagonal cystin. No tyrosin.

B. 4. No. 112, Book III.—Set of three calculi. Very irregular, long in shape. Darker in colour than preceding. Vary from 12 mm. to 3 mm. Weight 1 gram. No name. No date.

Completely hexagonal cystin. No tyrosin.

B. 6. Calculus 15 mm. by 8 mm. Pale, brown and waxy. Has a jagged process. Nephrolith. No weight. James Bell, 1891.

Completely hexagonal cystin. No tyrosin.

B. 7. Two small calculi. Larger 5 mm. by 6 mm. Somewhat pointed, waxy looking. Slightly rough surface. Passed. No weight given. Knill, 1890.

Completely hexagonal cystin. No tyrosin.

It must be stated in conclusion that the examination of a museum collection of cystin calculi is not altogether decisive regarding the composition of cystin calculi in general. Those calculi assembled under cystin are naturally those which have responded to the microscopic test for this substance. It is of interest that none of the calculi above reported contained anything which would correspond to the acicular type of cystin described by Loewy and Neuberg. Furthermore, none of them contained any tyrosin mixed with the cystin. A more correct method would be to investigate all the calculi giving a lead reaction for cystin in a large collection such as that belonging to McGill University. This, for obvious reasons, we have been unable to do.

LITERATURE.

[1] Loewy and Neuberg. Zeits. f. physiol. Chem. *43*, 338 (1904)
[2] Alsberg and Folin. Amer. Jour. Physiol. *14*, 54 (1905).
[3] Stolte. Hofmeister's Beiträge *5*, 15 (1903).
[4] Simon. Zeits. f. physiol. Chem. *45*, 357 (1905).
[5] Marriott and Wolf. Amer. Journ. Med. Sci. *131*, No. 2 (1906).
[6] Friedmann. Hofmeister's Beiträge *3*, 1 (1902) et seq.
[7] Mörner. Zeits. f. physiol. Chem. *42*, 349 (1904).
[8] Rothera. Journ. Physiol. *32*, 175 (1904).
[9] Rothera. l.c.

POISONING BY ORTHOFORM.

BY

A. SCHMIDT, M.D.
Montreal.

Having had occasion to relieve an extremely painful varicose ulcer on the ankle of a woman, orthoform was chosen, as being analgesic and antiseptic. It relieved the suffering completely within a few minutes, which relief lasted about ten hours.

After using the powder during about two weeks, with satisfaction as far as pain went, there developed an eruption on face, scalp, neck, also, but less extensively, on trunk and limbs, of large, pinkish-red papules, pink wheals on face, and erythematous patches on neck and chest. The skin around the ulcer was of a pale pinkish-yellow for about five inches, covering the œdematous tissues, and the ulcer itself was gangrenous.

The pulse ran up to 120; temperature went up to 102 2-5° one night. The tongue kept clean, but there was some headache. The ulcer continued excrutiatingly painful so that morphine had to be given during two or three days.

The orthoform had been put on very plentifully, at least twice a day, during about a fortnight, beginning a few days before the confinement of the patient.

Cases of poisoning by the drug have been reported by Bracy and Asam-Muman; the latter mentions sloughing of ulcer for which the substance had been employed.

APPENDICITIS RESEMBLING TUBAL PREGNANCY.

BY

A. LAPTHORN SMITH, M.D.,

Surgeon-in-Chief Samaritan Hospital for Women, and Gynæcologist to the Western Hospital and the Montreal Dispensary.

Mrs. J., a charwoman, was admitted to the Samaritan Hospital on the 15th January, giving the following history: She was 35 years of age, had been married twice, and had two children and one miscarriage by her first husband, the last child thirteen years old. She has always been in poor health, suffering a great deal from eczema, and a year ago was several weeks in another hospital for varicose veins. Her last regular period was in September. She missed her October and November ones, and when six weeks over time she began to have irregular hæmorrhages every week or two, and ever since she has had a good deal of pain in right side. She had several weak spells, but no actual fainting. About four days before admission she was taken with severe pain and fever, and suffered so much that she sent for Dr. L. Gilday, who found her with a pulse of 100 and a temperature of 103. He at once suspected appendicitis, but, owing to the pain being so low down, the possibility of tubal disease was considered. He consulted with Dr. T. P. Shaw, who agreed with him that the diagnosis was obscure but that it was a case for operation. By the time she reached the hospital, however, her pulse and temperature had come down to normal.

On examination the woman, who was very thin, was seen to have a rounded tumefaction, the apex of which was situated about two inches below McBurney's point. It was tensely fluctuating and there was not much muscular resistance. Her pulse was 70, and temperature 99 2-5. By bimanual palpation a rounded sausage-shaped swelling could be felt at the bottom of Douglas cul-de-sac on the right side, and this mass appeared coterminous with the swelling which could be seen and felt under the abdominal wall. From the fact that she had had irregular hæmorrhages for the last month I was inclined to think that this mass was a pregnant tube from the inside of which the placenta was already separated enough to cause hæmorrhages into the uterus, though it had not yet ruptured. The possibility of appendicitis coexisting was discussed, as many cases are on record where appendicitis has been mistaken for tubal pregnancy, and *vice versa*, the writer having reported several in a paper before this Society last year. There are also many cases of pus tube being mistaken for appendicitis, and *vice versa*, several such cases having been reported in Dr. Elder's paper.

But in view of the fact that so many women have died from rupture

of an undiagnosed tubal pregnancy, who might have been saved if the physician had only thought of such a thing, and also because the writer has stumbled upon and saved several cases of tubal pregnancy under the mistaken impression that they were cases of pus tube, he has always taught that it is better to suspect the condition even if we occasionally do not find it, but find something else which needed the operation, than not to suspect it at all and let a great many women die who might have been saved.

As she was in very poor condition she was kept a few days on preparatory treatment, and on the 19th January the abdomen was opened in the middle line and the right tube brought up for inspection. Although firmly adherent to the mass in Douglas cul-de-sac it did not contain a pregnancy and it was evidently not the mass we had felt per vaginam. Nothing was done to either tube or ovary or uterus, but the appendix was next looked for. It was found embedded in adhesions deep down in the pelvis and almost perforated and gangrenous. On beginning to free it there was a gush of thin and very fetid pus which was all removed with sponges, after which the appendix was brought up, detached from a coil of small intestine and removed flush with the cœcum which was then closed with a purse string suture, and again by a Lembert suture. On examining the above mentioned small intestine, it was found enormously thickened, and so friable that it was impossible to sew the peritoneum over its large raw surface. After stopping the oozing with hot sponges, it was dropped back into the pelvis, where it had come from.. It was the cause of the doubtful diagnosis, because it felt exactly like a large, solid sausage; and lying, as it did, at the bottom of the pelvis just where we usually find a heavy pregnant tube, it is no wonder that it might be mistaken for a tubal pregnancy before rupture.

As the general peritoneal cavity had been protected by hot towels, and the intestines were not soiled, the abdomen was not flushed out lest poisonous material might be carried to uninfected parts. All raw surfaces were sponged clean and dry, and in case that more suppuration should take place after the abdomen was closed, and in case that the badly injured small intestine should break down, it was necessary to provide good drainage. The writer prefers a rubber tube to gauze which, he thinks, does not always drain. A good sized rubber tube with many holes in it all the way down was passed, by means of a pair of sharp pointed forceps pushed through the top of the vagina behind the uterus, which caught the end of the tube, and brought it from just above the pubis to just outside of the vulva. The abdomen was then

closed with silk worm gut through and through sutures. The patient's pulse was exceedingly weak before and all through the operation.. She had an anxious convalescence, the temperature going once to 104 3-5, and her pulse to 140. But by the twenty-sixth day here temperature and pulse were normal, and she is now quite convalescent. Fortunately she had no vomiting, and took nourishment well.

I would like to call attention to the great advantages offered by the method of drainage employed in this case, and I have used it in many others. By keeping the patient with her head raised after the operation any pus which was formed from the pyogenic membrane lining the abscess cavity, as well as any fœcal matter which would have escaped if the damaged small intestine had perforated, would easily and surely have found its way by gravity to the drainage tube extending from the abdominal incision down to Douglas's cul-de-sac. As this tube had good sized holes in it all the way down it drained the whole pelvic cavity, and during the first few days several ounces a day of bad smelling pus ran out of the vagina. The tube and vagina were kept sweet by irrigating night and morning with solution of peroxide of hydrogen. After three or four days it was taken out because the discharge from it had become much less, but at once the temperature went up, and the tongue became dry and brown, so that we had to reinsert it, with the result, however, that the evidence of septic absorption gradually decreased, until now when her temperature has been normal for several days. Unfortunately this method of draining is only available for women, but the plan of raising the head so as to make the drainage tube the lowest part of the patient's body is just as applicable to men, and I think should be used more often. When a drainage tube is not employed and we are trusting entirely to the peritoneum to dispose of the exudation and blood we have been accustomed to raise the foot of the bed so that fluids in the abdomen would gravitate towards the diaphragm, under the generally accepted belief that the peritoneum has the greatest absorbtive capacity at that part. But it is perhaps open to question whether it is wise to allow these fluids, which are sometimes poisonous, to flow from one end of the peritoneal cavity to the other, and whether it would not be better in all cases in which we know that there will be much oozing of blood and serum to raise the head of the bed and let them drain into Douglas cul-de-sac where it is so easy to drain into the vagina. I might go even further and say that in cases in which we have not drained at all, and when things are not going well with the patient,it might be advisable to make an incision into Douglas cul-de-sac, a very trifling operation, and put in a drainage tube. The

patient whose case is here reported could hardly have recovered without drainage, and owing to the abscess being situated low down in the pelvis, it would not have been drained so well against gravity as it was by the method employed.

Another point worth noticing was the almost normal temperature and normal pulse with an almost perforated appendix and five inches of the small intestine almost gangrenous. Instead of being a reason for not operating as many might think, these favourable conditions are the best argument for operating when the physical signs indicate an inflammatory mass in the neighbourhood of the appendix or tube. It is well known that appendical abscesses sometimes go on to the stage of cold abscesses, and that when operated on at this stage they give the lowest mortality, always excepting the very early operations, before twelve hours have elapsed from the beginning of the attack, which not only have practically no mortality but give a very easy convalescence. This is the third or fourth case in which I have operated for appendicitis with a normal pulse and temperature and found the appendix perforated or almost gangrenous.

The board-like resistance of the rectus muscle when the abdomen is touched is generally given as a valuable sign of appendicitis, but in this case there was very little resistance or tenderness, except on very deep pressure. And what pain there was, was referred rather to the region of the right ovary and tube than to McBurney's point. I remember a similar case at the Western Hospital in the care of one of the surgeons, where there was neither tenderness nor rise of pulse or temperature and where the man was walking around, and yet the appendix was gangrenous.

The Warren Triennial Prize was founded by the late Dr. J. Mason Warren in memory of his father, and his will provides that the accumulated interest of the fund shall be awarded every three years to the best dissertation, considered worthy of a premium, on some subject in physiology, surgery, or pathological anatomy; the arbitrators being the physicians and surgeons of the Massachusetts General Hospital. The subject for competition for the year 1907 is on Some Special Subject in Physiology, Surgery or Pathology. The amount of the prize for the year 1907 will be $500. Dissertations will be received until April 14th, 1907.

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THE "CURE" OF TUBERCULOSIS.

Tuberculosis is so widespread and fatal a disease, that one can readily understand the interest which is aroused by any announcement of a new method of treatment. In the campaign of education which is now going on it is inevitable that many imperfect notions should become prevalent. Instead of keeping the mind fixed upon the essential nature of the disease, even members of the profession have become enraptured. They think of it, not in terms of an infectious disease, but as an apocalyptic manifestation. They refer to it in terms of hyperbole, as a white plague, a pale horse, or a reaping machine. These metaphors do not make for precision of thinking or accuracy of statement.

The curability of tuberculosis has become so involved in conjecture that it is difficult to speak temperately of any new measure which promises relief. We cannot forget the fiasco in which Koch's great

"discovery" ended, the suspicious circumstances under which Behring's "discovery" was announced to the world, nor the engineering to which Marmoreck's serum treatment was subjected. Sensible men must not be blamed if they receive with an extreme of scepticism each new announcement as it appears, particularly when the great intelligence comes to them through the daily newspapers which are not celebrated for correctness of relation, or scientific reticence.

We are led into these wide reflections by the proclamation in a Sunday newspaper that on the 17th of February, 1906, it was "able to make an announcement which will bring joy to thousands all over the continent who are the victims of that dread disease which an old writer once called the 'Murderer of the Children of Hope.' Consumption can be cured."

This excess of enthusiasm arose over a paper which was read before the Montreal Medico-Chirurgical Society on February 16th. by Dr. George A. Brown, entitled, "A Cure for Tuberculosis," with "living cases of pulmonary, laryngeal, cutaneous and joint tuberculosis, showing the result of treatment."

We propose to lay aside all preconceptions or prejudices which may have been aroused by the method in which this "important discovery" was made, and to address ourselves to the subject itself. We have not been favoured with the text of Dr. Brown's paper, and shall be obliged to depend upon our memory of what was said at the meeting, assisted by the usual stenographer's notes of the proceedings.

In the first place, we have nothing but praise for Dr. Brown, that he, a physician engaged in the general practice of medicine, should have done any work at all, and arrived at results—whether right or wrong—upon so important a subject. The general practitioner has become too distrustful of his own ability, and too careless of his opportunity, and has been content to rely upon the specialist and the clinic. Dr. Brown has done something to controvert this tendency.

It is but right in a matter like this that criticism should come from a man's friends. Seeing the cases which Dr. Brown showed at the meeting of the Medico-Chirurgical Society, it struck an observer that, in one case at least of lung disease, the bacilli had not been found in the sputum; that in the case of the skin lesion on the arm, it might perhaps be luetic, that in the case of tuberculous disease of the bowel of two years standing, the diagnosis must be well supported by history, and signs of disease elsewhere, if the bacilli are not found.

Before the subject can be even touched, in a controversial way, it is necessary that it be proved, beyond all doubt that the cases are really

cases of tuberculosis; and it seems to us that Dr. Brown has not been sufficiently careful to safeguard his work in this respect.

The proper place for this criticism is in the meeting of the society at which the communication was made; and, as a matter of fact, criticism taking this ground was made. Until this criticism is properly answered the method of treatment recommended by Dr. Brown cannot be accepted without reservation.

McGILL AND THE WEST.

It is too soon to speculate upon the result to medical education in the West of the notable departure which has recently been taken by McGill University in establishing at Vancouver a College which, while under independent management, is henceforward to rank as a college of McGill University. If any movement should be initiated for providing medical teaching at Vancouver it will no doubt naturally associate itself with the new institution, which is to be called the "McGill University College of British Columbia."

For the last seven or eight years, Vancouver High School has been working in close affiliation with McGill, and the connexion thus formed has been felt by both parties to be capable of considerable further development. It should be said, however, to begin with, that in seeking such development, McGill has not been actuated by any motive of rivalry with other universities. Its sole object has been to do what it can to promote the unification of higher education in Canada.

The action recently taken was foreshadowed in the address presented by the University to the Governor-General on the occasion of his visit in February, 1905, in which reference was made to the project of what was called "Federation through Education." It is felt that growing centres in the West should be helped to avoid the mistakes made elsewhere, especially in districts where there are to-day so many small colleges out of all relation to each other, and very often hampered rather than helped by some denominational connexion.

The future alone will show whether the present movement will in time be supplanted by the establishment of a Provincial University in British Columbia. Meanwhile, the new college at Vancouver will probably long be content to remain a component part of one of the leading Canadian universities, deriving prestige from its connexion with McGill, while retaining in all essentials its own autonomy.

THE OPHTHALMOLOGISTS.

The passing away of Dr. Buller left a wide break in the ranks of the ophthalmologists of Montreal. There was a vacancy in the chair of Ophthalmology at McGill, and at the Royal Victoria Hospital. These two positions have been filled by the appointment of Dr. J. W. Stirling as professor of ophthalmology in the medical faculty, and ophthalmic surgeon to the hospital. As a result, the position of ophthalmologist at the Montreal General Hospital, previously held by Dr. Stirling became vacant. To this there were three aspirants, and Dr. George H. Mathewson was selected by the governors on the 23rd of February.

Upon the grounds of seniority alone Dr. Stirling's appointment to the faculty was justified. It was not unnatural either that he should apply for the position in the Royal Victoria Hospital, previously occupied by Dr. Buller, and this position he felt free to accept.

The governors of the General Hospital must have been embarrassed in making a choice by reason of the excellency of the three candidates who offered. Dr. Kerry had served the hospital faithfully for eight years and received much consideration on that account. Dr. McKee had a brilliant record as a student, and scientific worker. He also had served for three years under Dr. Buller, and further qualified himself by prolonged residence abroad in the study of his special subject, previous to his appointment as an assistant Ophthalmologist of the General Hospital, a position which he still still holds. Dr. Mathewson had years of service to his credit in the Western Hospital; he is a graduate in two faculties of McGill; he was assistant for four years in the Royal Victoria Hospital, and has just returned from a period of study in Vienna.

The report of the Director-General of Public Health for 1905 has appeared with commendable promptness. The little pamphlet of 28 pages is an interesting dissertation upon many things; upon the necessity for a department of public health; the progress of bubonic plague throughout the world; the prevalence of cholera; the transmission of yellow fever; the red light treatment of scarlet fever; the history of leprosy; Behring's "discovery"; Japanese sanitation. The quotations from medical journals and newspapers give to the report the character of a "retrospect." The actual work of the department is described in something under three pages. Either that is not enough, or the work has been unimportant.

The first annual report of "Brehmer Rest" has reached us. This house of rest at Ste. Agathe provides for persons who are recovering from illness, and are liable to the infection of tuberculosis. The aim is rather to prevent the onset of the disease than to contend with it when it has once gained a foothold. Dr. Richer has charge of the medical arrangements. The plan upon which the institution is conducted appears to us to be thoroughly sound.

The officers of the International Medical Congress, at Lisbon, have requested Dr. Clark Bell, President of the American Medico-Legal Society, to organize an Auxiliary Committee to secure contributions to the medico-legal sections of the Congress; embracing medico-legal, military, naval and railway surgery, hygiene and epidemiology. Dr. Bell requests persons interested in those subjects to communicate with him at 39 Broadway, New York.

A curious sign of the gradual transformation of London is the tendency of publishers to move from the city westwards. During the last few years several prominent firms have left their old quarters in Paternoster Row and its neighbourhod. The centre of the London book-producing world might, in fact, now be placed somewhere near Charing Cross. It is to this region that Mr. T. Fisher Unwin has removed. His new office is at No. 1 Adelphi Terrace. Adelphi Terrace is known to architects and antiquarians as one of the most interesting works of the brothers Adam. No. 1, the new home of Mr. Unwin's business, was, in the second quarter of the nineteenth century, the residence of Sir Edward Banks, the builder of Waterloo, Southwark, and London Bridges. About twenty years ago it was occupied by the Arundel Club.

The *Maritime Medical News* is now published by the Imperial Publishing Company, and appears in a new dress. It has always been an interesting journal, and now is much improved.

Dr Benson Ambrose Cohoe of the medical faculty of the University of Chicago, has resigned to accept a position as resident physician and bacteriologist at the Johns Hopkins Hospital. Dr. Cohoe is a graduate of the University of Toronto and went to the University of Chicago two years ago from Cornell, where he was an instructor in biology.

Dr. Elzear Pelletier, secretary of the Provincial Board of Health, has received a letter from Dr. C. J. Fagan, secretary of the British Columbia Board of Health, transmitting an offer of Lord Strathcona to assist in the establishment of a national sanatorium for the treatment of tuberculosis throughout the Dominion.

In this letter Dr. Fagan states that he has just returned from Great Britain, where he had a conference with Lord Strathcona on the subject, who authorized him to state that: "If the authorities and the general public would demonstrate in a practical manner their desire to have such an institution, he would be ready and even anxious to contribute to a national movement which would have as its object the gathering of the tuberculosis patients of Canada at a place found most suitable for the purpose."

Reviews and Notices of Books.

TREATISE ON DISEASES OF THE SKIN; FOR ADVANCED STUDENTS AND PRACTITIONERS. By HENRY W. STELWAGON, M.D., Ph.D., Professor of Dermatology in the Jefferson Medical College and Woman's Medical College, Philadelphia, etc., etc. Fourth edition, thoroughly revised. Philadelphia and London: W. B. Saunders & Company, 1905. Canadian agents: J. A. Carveth & Co., Limited, 434 Yonge Street, Toronto.

As we have three times in the last five years referred to the excellence of this text-book on skin diseases, we shall confine ourselves on this occasion to noting the more important changes and additions. Since the last edition appeared in 1902, very little additional knowledge has been gained except in the single department of therapy; and here the discovery of the therapeutic value of the Roentgen rays, high frequency currents, Finsen light and Radium has revolutionized the treatment of many of the hitherto incurable diseases. As is to be expected of every new agent, the value of these methods of treatment was at first overrated, and experience was needed to determine in how far their use was warranted. The author, we think, has sifted the evidence most impartially, and his conclusions are sound and tend to conservativism.

Under the heading of General Remarks on Treatment, a comprehensive description is given of the instruments used and methods of their employment in Radiotherapy, Actinotherapy, and high frequency currents. This is a most valuable addition and should show the reader

that only by an expert is their use justified. The article on Lichen ruber is omitted in the present edition and this disease included, and we think, rightly, under Pityriasis rubra pilaris, with which it appears to be identical. So, too, Dermatitis vegetans of Hallopeau is included under Pemphigus vegetans. In considering the treatment of Lupus vulgaris, a detailed account is given of the Finsen light method, which while it is held to be invariably of benefit, has the great disadvantage of requiring lengthened exposures of at least an hour extending over a period of often three years. The cosmetic effects obtained are better than by any other means. Of the Roentgen rays on the other hand the author states that one cannot say in a given case, how much good it will do. In the majority of cases it is curative, and in others absolutely ineffective. It possesses advantages over the phototherapy in that a larger part can be under treatment at one time and the results in favourable cases are comparatively quickly obtained. Nothing new has been added to our knowledge of the etiology of Lupus erythematosus, and it is still an open question whether it should be listed among the cutaneous manifestations of tuberculosis. The same uncertainty obtains here with regard to the value of the X-rays, a trial alone will show whether complete success or absolutely no effect will attend its use. Probably the majority of cases are benefitted, but the proportion is not so large as in lupus vulgaris. The author reports attaining excellent results in a few cases by high frequency currents. No mention is made of the recent work on the spirocheta pallida as a cause of syphilis.

In speaking of the treatment of Epithelioma by means of the Roentgen rays and Finsen light the author refers also to the use of radium, which he considers as of less benefit and more difficult to limit in its action. Perifolliculitis suppurative conglomerata, treated as a separate disease in former editions, is now included under ringworm of the skin.

To sum up, Roentgen rays are beneficial in old patches of psoriasis, eczema ani, eczema seborrhoicum of the face, nævus vasculosis, both forms of lupus, epithelioma, sycosis vulgaris, persistent rebellious cases of acne, and ringworm of the scalp. The Finsen light in old patches of psoriasis, furunculosis, both varieties of lupus and epithelioma.

A change has been made in the substitution of plates of the author's own cases for those from Mracek's Hand-Atlas, which appeared in former editions. While for some reasons it is advisable that an American work should not have to depend upon German plates, it must be admitted that in the quality of the workmanship and the accuracity in representation of the lesions, the American work suffers in comparison

with the German. Several new coloured plates have also been added in the present edition.

TEXT-BOOK ON THE DISEASES OF THE EAR, NOSE AND PHARYNX. By Drs. D. B. ST. JOHN ROOSA, M.D., LL.D., Professor of the Diseases of the Eye and Ear in the New York Post Graduate Medical School and Hospital, and BEAMAN DOUGLASS, M.D., Professor of the Diseases of the Nose and Throat, in the New York Post Graduate Medical School and Hospital. Macmillan Co., 1905. 621 pages. Price, $3.00

The authors are to be congratulated upon the production of a very useful and complete text-book of the Diseases of the Ear, due cognizance being taken of all the latest advances in diagnosis and treatment. The associated conditions of the nose and throat are also thoroughly handled, and this is of much value in a text-book on diseases of the ear, in which, as a rule, this portion of the subject is rather cursorily dealt with. The book can be strongly recommended to general practitioners and students. It is admirably printed and profusely illustrated.

J. W. S.

ABDOMINAL OPERATIONS. By B. G. A. MOYNIHAN, M.S. (London), F.R.C.S., Leeds. Philadelphia and London: W. B. Saunders & Company, 1905.

This is a most remarkable work on a department of surgery which in recent years has attained great prominence, mainly because it has been made practicable by modern aseptic technique. By no other branch of the surgeon's art can so many lives be saved and so much suffering relieved. Mr. Moynihan in his work deals only with those operations which are common to both sexes. No gynæcological operations are included. As its name implies, the work is one describing methods of operation; pathology and symptoms are not dealt with, and only incidentally and occasionally are indications discussed. In the first chapter the bacteriology of the stomach and intestines is briefly discussed. This is justified, the author says, by the fact that "many of the problems connected with the surgery of the stomach and intestines, depend for their elucidation upon a knowledge of the bacteriology of the alimentay canal." Bilroth in 1874 was the first to show that the contents of the intestines in the new-born are always sterile, and that the yellow discharges seen soon after birth are first to contain

micro-organisms. The appearance of bacteria depends on the nourishment taken. That constant bacterial inhabitant of the human intestinal canal, the Colon bacillus, is taken in with the food. The degree of infection of the gastro-intestinal canal, however, varies very much according to the quality and nature of the food taken and the interval which may have elapsed, and in the different parts of the canal. Normal digestion and evacuation greatly lessen the numbers of bacteria of the digestive tract. In intestinal obstruction the contents are teeming with bacterial life of extreme virulence. The experiments and observations of Harvey Cushing are given honourable prominence by the author in connexion with this subject.

The second chapter treats of the preparation of a patient, the conduct of operations generally, and the after treatment. Catgut and celluloid thread, or, as it is sometimes called, Pagenstecher's thread, are the ligature and suture materials employed by the author. He has entirely abandoned silk. In the sterilization of catgut the iodine method of Claudius is exclusively employed. In this he is at one with all who have ever employed it. Ease and simplicity (of preparation) commend it and its reliability is admitted on all hands.

In the after treatment of the patient the author frequently gives 10 grain doses of aspirin for the relief of pain, avoiding morphia whenever possible. He gets his patients out of bed sooner than most surgeons, at the end of six or seven days in a good many cases. In the advantage of this we agree with him as also in his high estimation of the value of massage of the legs, arms, and back, commenced a few days after the operation when everything is going well.

In the remainder of the forty-nine chapters into which the book is divided, all the operations of abdominal surgery other than gynæcological, are carefully and clearly described. The illustrations are numerous, beautiful and clear. In the description of individual operations one naturally looks for the author's opinions on debatable points. Two of these may be noted: In tubercular peritonitis he is strongly of opinion that only in cases accompanied with fluid effusion should operation be undertaken, and that the fluid should be evacuated with the least possible violence to the peritoneum, and the wound closed without drainage. Separation of adherent coils of intestine is to be avoided whenever possible; as the result will often be a fæcal fistula which in tuberculous conditions rarely if ever closes. He admits, however, that a tuberculous Fallopian tube or appendix, if it be the probable focus of infection, must usually be removed if possible. Experience has taught us that the author's teaching on these points is sound. With

reference to the explanation of the good done by the evacuation of ascitic fluid collections in tuberculous peritonitis, the author is disposed to adopt that given by Gatti. This is that the fluid which is always poured out by the peritoneum after the closure of the wound "is actively anti-bacterial and that it exerts a deleterious influence upon the tubercle bacillus." The second debatable point is the employment of mechanical appliances for intestinal anastamosis. These, such as buttons and bobbins, are entirely discarded and abandoned by the author, and he adds that, in his opinion, "the purpose of these mechanical aids has been served, and that their interest is now only historical." In this expresion of opinion we believe that most surgeons of large experience will fully concur.

Operative Surgery. By John J. McGrath, M.D., Professor of Surgical Anatomy and Operative Surgery at the New York Post Graduate School, Surgeon to the Harlem, Post Graduate, and Columbus Hospitals, New York. Second edition, thoroughly revised, with 265 illustrations, including many full-page plates in colours and half-tone. F. A. Davis' Company, Publishers, Philadelphia, 1906.

This book serves the double purpose of a surgical anatomy and an operative surgery, every region upon which operations are described being prefaced by a description of its chief anatomical points from a surgical point of view. The illustrations are many and well adapted to the text, which is well written and makes easy and agreeable reading. This is particularly so in the section upon the abdomen, such subjects as gastro-enterostomy, inguinal and femoral hernia, and the surgical treatment of diseases of the small and large intestine, pancreas and spleen being described in detail. We regret the absence of the consideration of umbilical hernia, however. The section upon the urinary organs receives due consideration, the author preferring Young's operation for enucleation of the prostate. On the other hand, we are surprised that such an operation as litholopaxy, which has given such excellent immediate and subsequent results, should not be considered. We note that in cases of general peritonitis following appendicitis the author advises thorough irrigation without evisceration. In the so-called "internal appendectomy," we prefer to cover over the stump of the mesentery with peritoneum so as to guard against subsequent adhesions, etc. We take exception to the statement, so often made, that chloroform is less irritating to the kidney than ether, as, clinically, we have found the opposite to be the case.

W. L. B.

Medical News.

MONTREAL GENERAL HOSPITAL.

The annual meeting of the Montreal General Hospital was held on the 20th February, 1906. The report of the Secretary showed that in the in-door department there were treated to a conclusion last year, a total of 3,237 patients, an increase of 93 over the previous twelve months. The out-door patients numbered 44,504, an increase of 5,015 over the preceding year. This gives a total of patients treated at the hospital during the year of 47,741, or 5,108 more than in 1904.

Of the 3,237 in-door patients treated to a conclusion, 201 remained over from the previous year; 3,216 were admitted during the year, and 190 remained in the hospital at the end of the year. There were discharged from the hospital, and there died in the institution 253. The percentage of mortality was 7.81, or 4.54 exclusive of deaths occurring within three days of admission.

The average number of patients in the wards per day was 199.58, and the average number of days in hospital per patient was 22.55. The aggregate number of days in hospital by all patients was 72,839, an increase of 3,627 as compared with the previous year. The average daily cost per patient was $1.35, as against $1.38 in 1904.

Of the in-door patients treated to a conclusion, 2,122 were males, and 1,115 females; and of these 1,596 were Protestants, 1,385 Roman Catholics, and 256 other religions. Of those thus treated 2,725 were citizens, 410 strangers, 98 sailors, and 4 immigrants.

Of the out-door patients, there were treated in the medical department, 10,129; surgical department, 17,157; eye and ear, 5,535; gynæcological, 1,498; laryngological, 3,222; dermatological, 1,922; neurological, 2,683; dental, 197; and emergency, 2,173.

The ambulance made 1,581 trips during the year, in connection with which 352 were cases requiring out-door treatment only, and 9 were false alarms.

In the pathological department there had been performed 216 autopsies, and 1,338 examinations had been made for the attending staff.

The number of applications for the training school during the year was 475, an increase of 65 over 1904. Twenty-eight nurses passed their final examination, making the total number of graduates 261.

The income for the year, $96,134, though $2,071 short of the expenditure, was the largest during the history of the hospital.

It was stated in the report of the committee of management, that the Charles Alexander Memorial Fund had reached the sum of $200,112, and it was understood that further subscriptions were expected.

The former Committee of Management and the Medical Board were re-elected. Dr. George H. Mathewson was elected to the position of ophthalmologist, and Dr. Craig, assistant laryngologist.

PROTESTANT HOSPITAL FOR INSANE.

The annual meeting of the Protestant Hospital for Insane was held on 6th February, 1906. The gross receipts on maintenance account were $107,447, and the expenditure $107,496.

The cost per patient per annum for maintenance was $202.62, or 55½ cents per day. The difference between this amount and the Government allowance was made up by contributions from the public and receipts from private patients, the corporation being bound by its charter to expend all revenue, from whatever source, on the hospital and its inmates.

Dr. Burgess submitted the report of the medical superintendent. It stated that there were admitted to the hospital during the year 190 patients—103 men, and 87 women, making, with those in the institution at the close of the previous twelve months a total of 654—343 men, and 311 women. Of those received during the year, 83 were private, and 107 public cases. The greatest number at any one time in the hospital was 503, the least 460, while the daily average was 476. There were discharged 103 patients, 46 died, 2 escaped, and 2 were out on trial, leaving in the hospital, at the end of the year 501 patients—262 men and 239 women.

Of the patients received, 113 were natives of Canada, 48 of other portions of the British Empire, and 20 were of foreign birth. Could there be a more striking commentary on the inefficiency of our immigration laws than this record, it was asked, which showed over 49 per cent. of the admissions to have been persons born outside of the Dominion?

Of the 103 discharged, 63 had recovered, 17 were improved, and 23 unimproved. This was a discharge rate of 54.21 per cent., and a recovery rate of 33.16 per cent. on the admissions.

As compared with the previous year, the number of cases admitted was one more; the number treated, 19 more; the daily average in the hospital, 23 more; the number of recoveries, seven less, of improved,

eight less, and of unimproved, 12 more. The number of deaths was 17 less, and the number of escapes the same. The percentage of discharges on admissions last year was 54.21, as against 56.08 in the previous twelve months, and the percentage of recoveries 33.16, as against 37.03, while the percentage of deaths on the number under treatment was 7.03, as against 9.32.

Referring to requirements, it was stated that of those mentioned in the last annual report, the following remained unfulfilled: A separate building for tubercular patients, a nurses' home, a larger amusement hall, a summer-house for female patients, a large workshop, cottages for married employees, and a conservatory. If the increase in population was as great during the present years as it was during the past, to these wants would have to be added increased accommodation for both male and female patients. To provide increased accommodation, two courses were open; either to add to the existent east and west houses, or to erect separate cottages for male and female patients of the superior class and utilize the room at present occupied by these classes for public patients. Considerable extra room might also be got by the erection of a new amusement hall and the conversion of the present one into a ward for quiet, chronic patients.

INTERNATIONAL MEDICAL CONGRESS.

Arrangements are being completed for the fifteenth Congress, which meets in Lisbon, from the 19th to the 26th of April. The principal general addresses will be delivered by Sir Patrick Manson, London; Prof. Brissaud, Paris; Dr. Jose Maria Esquerdo, Madrid; Dr. P. Aaser, Christiania; Prof. Azevedo Sodre, Rio de Janeiro; Prof. Neumann, Vienna; Prof. Prince Jean Tarcharoff, St. Petersburg; Prof. E. von Bergmann, Berlin;

The different nationalities are well grouped, and the delegates from Great Britain, Canada, Australia and the British Colonies will have a common meeting place.

The service of lodging will be in charge of M. Manuel Jose da Silva, Praca dos Restauradores, Palacio Foz, Lisbon, to whom may be addressed all correspondence on this subject.

Applications for membership will be received until the hour of the opening of the Congress and during the Congress, but in order to secure reductions granted by railways and navigation companies it is necessary to apply as soon as possible. All such correspondence may

be addressed to the Secretary General, M. le Professor Miguel Bombarda. Nova Escola Medica, Lisbon.

It is announced that there will be three general *fêtes* and there will probably be several receptions and dinners de gala. A bull fight according to the old Portugese way will be organized at the expense of the Congress. The definite details will be published at a later date.

A number of Canadians have already decided to attend the Congress. It is requested that any member of the profession in Canada who desires to join the Canadian Committee would at an early date communicate with Dr. A. McPhedran or Dr. W. H. B. Aikins, of Toronto, who will be glad to furnish all available information.

ANTI-TUBERCULOSIS LEAGUE.

A special general meeting of the Montreal League for the Prevention of Tuberculosis was held 17th February, 1906. A series of interesting statistics was furnished by Senator Dandurand. He stated that out of 33,000 deaths in this province by the last returns, nearly 3,000 were due to tuberculosis. Of these 450 were under 5 years of age; 238 between 5 and 14; 777 between 15 and 24; 974 between 25 and 45; 312 between 45 and 59; 124 between 60 and 69, showing a majority of deaths at the most productive and most useful period of life. In Ontario the figures were of a similar character; while in 1901 the proportion of such deaths was still higher.

In 1901 the population of the Dominion was 5,371,000, and the mortality from all causes for the year was 81,000, 9,709 being due to tuberculosis, or about 12 per cent. In the case of 998 schools in this province, 166 were reported as being insufficiently ventilated, and over 44,000 school children more or less predisposed to tuberculosis, lacked ample protection.

HOTEL DIEU.

During the year 1905, 3,148 patients were admitted into the hospital. Of that number 1,200 were surgical cases. In the Out-Door Department for the diseases of the eye, 2,213 patients were treated. The electrical dispensary was very well patronized, but no register was kept. There is no general dispensary at the Hotel Dieu, but the visiting physicians and the house surgeons gave, on an average, 150 free consultations every month.

LA SOCIETE MEDICALE DE MONTREAL.

Meeting of February 6th, 1906, Dr. Marien, Vice-President, in the Chair.

After reading and adoption of the Secretary's report for the last meeting, Dr. Dubé read an interesting paper advocating the necessity of declaring to the Board of Health all cases of contagious diseases, a regulation the French speaking physicians too often overlooked. The city should take means to help the afflicted family during the course of the diseases. Otherwise the chief of the family cannot easily comply with the law and not go to his work when isolation is ordered.

Dr. Louis Laberge, the City's health officer, Drs. Ervieux Lesage, Demartigny, O F. Meunier, J. E. Laberge, took part in the discussion which followed.

Dr. Wm. Jas. Derome reported a case of enteroanastomosis for excision of the colon in a case of cancer.

The committe named to study the question of establishing a Central Board of Examiners, as advocated by Dr. Fortier in a paper read at one of the Society's previous meetings, reported favourably, urging the Provincial Board of Physicians and Surgeons to obtain legislative approval in that respect as soon as possible.

W. J. D.

ROYAL VICTORIA HOSPITAL.

Report for January, 1906: Patients admitted, 292; patients discharged, 246; patients died, 28. Medical, 94; surgical, 116; ophthalmological, 21; gynæcological, 40; laryngological, 21. Out-Door Department: Medical, 705; surgical, 489; eye and ear, 265; diseases of women, 119; nose and throat, 526; total, 2,104. Ambulance calls, 103.

NOTRE DAME HOSPITAL.

For the month ending January, 1906, 187 patients were admitted into the hospital. Of this number 82 were discharged cured; 41 improved or convalescent; 5 not improved; 7 were dismissed without treatment, having refused to be treated.

Twenty-one deaths were registered; of this number one patient died before reaching the hospital and seven others died shortly after their arrival. In the various out-door departments 1,796 consultations were given and the house surgeons gave the first treatment to 144 emergency cases. The ambulance answered 103 calls.

BRITISH MEDICAL ASSOCIATION.

Toronto Meeting, August 21st to 25th, 1906.

1. *Fares, Going Dates and Limits.*—(*a*) Domestic Business, Certicate Plan Arrangements; free return regardless of number in attendance. Passengers going rail, returning R. & O. Nav. Co., or *vice versa*, rate to be one and one-half fare.

(*b*) *European Business.*—On presentation of certificate, to be prepared and signed by the Secretary of E. C. P. Association, and countersigned by the Secretary of the Canadian Committee, or the Secretary of the British Medical Association, one-day tickets to be issued at one-half lowest one-way first-class rail fare; round trip tickets at lowest one-way first-class rail fare between all points in Canada. Rates to Pacific Coast subject to concurrence of E. C. P. Association. Steamship lines to advise Secretary what, if any, additional arbitraries are required.

Dates of Sale, July 1st to September 30th, 1906, inclusive. Final return limit, September 30th, 1906.

2. *Extension of Time Limit.*—On deposit with Joint Agent of Standard Convention certificates issued from points in the Maritime Provinces, from all points west of Port Arthur and from points in the United States, on or before August 28th, 1906, and on payment of fee of $1.00 at time of deposit, an extension of time until September 20th to be granted. Joint Agency to be conducted in the name of G. H. Webster, Secretary, E. C. P. Association, will be kept open from August 21st to September 16th, 1906.

3. *Side Trips.*—Side trip tickets to be sold from Toronto to delegates from the Maritime Provinces, from all points west of Port Arthur and from the United States, on presentation of validated certificate, or deposit receipt, at lowest one-way first-class fare for the round trip, to points in Canada. Dates of sale, August 23rd, to September 1st, 1906, inclusive; Return limit, September 30th, 1906.

Usual additional arbitraries via Upper Lake Steamships to apply, viz., going lake, returning same, $8.50 additional to be collected. Going lake returning rail, or going rail returning lake, $4.25 additional to be collected. Also usual arbitraries via St. Lawrence Route, for delegates desiring to return by steamer, on presentation of tickets to purser, viz., $6.50 Toronto to Montreal; $3.50 Kingston to Montreal.

Via Northern Navigation Company, on lines where meals and berths are not included, the rail rate will apply; or lines where meals and berths are included, rate to be single fare plus meal and berth arbitrary.

The British Medical-Association began at Worcester on June 19th, 1832, under the title of the Provincial Medical and Surgical Association. In 1856 the name was changed to that now used. There are now 20,000 members, and $7,500 is annually given by it in aid of scientific investigation, scholarships and other prospects for the furtherance of scientific medicine.

The committee of management of the General Hospital have placed within the hospital a suitable memorial to its late president, Mr. F. Wolferstan Thomas, to whom the institution is so greatly indebted for his untiring efforts to premote its interests. Through a personal canvass, assisted by the present treasurer, Mr. S. H. Ewing, he collected from citizens about $120,000, to pay in full the reconstruction of the main building, with the three adjoining wings, and the cost of the Jubilee memorial, known as the Nurses' Home. The action of the committee meets with the general approval.

The Governors of the Montreal General Hospital at the annual meeting adopted a resolution in the following handsome terms:

"The governors of the Montreal General Hospital assembled deeply regret the absence, through indisposition, of their much esteemed friend and colleague, Dr. Robt Craik. Remembering Dr. Craik's useful life, included in which are many acts of kindness for the benefit of his fellows, may be mentioned especially his warm and constant interest in the welfare of this hospital, extending over a period of fifty-five years. The Governors beg, therefore, to convey to Dr. Craik their heartfelt sympathy for him in his temporary retirement on account of sickness, and they fervently express the wish and hope that he may soon be restored to health and strength."

In this desire and hope every member of the profession joins fervently.

Dr. William Christie, of St. John N. B. died on Feb. 8th in his 71st year. He was a surgeon of ability, a graduate of Jefferson College, Philadelphia, in 1864, and devoted considerable time to public life. He was a member of the City Council at the time of his death, had been President of the City Medical-Society and a member of the Medical Council, the executive of the Provincial Society. He was a member of the hospital staff for twenty-years.

Dr. Wm. M. Cameron, of Halifax, died on January 24th.

Dr. John F. Brine, of Canso, N.S., died on January 18th. He was a graduate of Harvard University.

Dr. W. J. Early, of Owen Sound, died on January 25th, of cancer. He had practised there for the last thirteen years.

Dr. George Pringle died at Toronto on the Feb. 16th, aged 72 years. He was born and practised for many years in Cornwall, Ont.

Dr. George W. Thompson died at Toronto, on January 20th, in his 69th year. He had formerly practised at Humberstone, Ont.

Dr. Milton Baker, a graduate of Trinity Medical College, died of cerebral abscess, at Brantford Ont., on the 23rd of January, aged 37.

Dr. Frederick Good win of Bayfield, N. B. at Feb. 11th. aged 45 years. He was a graduate of Baltimoree Medical-School and, had practiced for fourteen years.

Dr. William H. Hand of Woodstock, N. B. died on February 10th of blood poisoning, in his 43rd year. He was a native of New Brunswick, and a graduate of the University of Pennsylvania.

Dr. J. J. W. R. Boyer of Barrie, Ont., died on February 12th of typhoid fever, in his 61st year. He was a native of Cobourg, lived in Holland, graduated in England, practised in Russia, and afterwards in the state of Virginia.

Retrospect of Current Literature.

SURGERY.

UNDER THE CHARGE OF GEORGE E. ARMSTRONG.

Charles Barrett Lockwood, F.R.C.S. "Carcinoma of the Breast and its Spread into the Lymphatics." *British Medical Journal*, January 27, 1906.

Speaking from an extensive experience the writer strongly advocates the use of the microscope at the time of operation to determine the true nature of the growth. Attention is drawn to the variation in the rapidity of growth and extension of malignant disease depending, to

a large extent, upon the position of the primary growth. Thus, cancer of a hollow, muscular viscus like the urinary bladder may be very slow in its lymphatic extension, while carcinoma of the breast and malignant disease of the tongue extend very early, in fact, there seems to be hardly any interval between the onset of the growth and its spread into the neighbouring lymphatics. Reference is made regarding the duct cancer, some surgeons believing it to be less malignant than the other forms.. The writer believes this idea to be a dangerous delusion, and cites cases to prove his point. Several interesting cases are given to show the manner in which the spread of cancer takes place through the lymphatics and the erratic manner in which this sometimes occurs. He believes that it is probable that cancer may cross in the lymphatic channels from one breast to another, but that it is rash to assume that it may have done so in any particular instance of bilateral tumour. Thus, a cystic fibro-adenoma was removed from the right breast, and five years later a tumour, clinically exactly like the first was removed from the left and found to be a spheroidal celled carcinoma. In another case the opposite condition was noticed. As a result of the excellent work of Handley on the Spread of Cancer, the writer now removes the fascia covering the costal origin of the external oblique if the case be at all extensive in the axillary lymphatics. Frequently the gland most remote from the parent growth will show malignant extension, while those nearer appear to be free. In these cases extension can only be explained by the short circuit system which evidently obtains in the lymphatic vessels. As a result of his experience he now takes away both pectorals and the axillary fasciæ as well as axillary contents of glands and fat.. The upper axillary glands can only be satisfactorily explored by removal of the pectorals, the operation is not severe and leaves a good functional arm. If it has spread to the cervical glands a dissection of both anterior and posterior triangles is done. These operations may seem extensive, yet experience has shown that the end justifies the means.

Charles H. Peck, M.D. The Operative Treatment of Cleft Palate, with a report of eight cases. *Annals of Surgery,* January, 1906..

This article is beautifully illustrated with seven plates. The operation as described is essentially that of Langenbeck, and when properly performed, is capable of closing the cleft in nearly if not all cases, either in children or adults. The best age to operate is from two to three, the easiest from six to ten. The Whitehead gag and the Rose

position add greatly to the ease of exposure and control of hæmorrhage. The bellies of the levator and tensor palati with their insertions into the palatine aponeurosis should be preserved, but the attachment of the aponeurosis to the posterior border of the hard palate must be divided together with the mucous membrane on the nasal aspect of the velum, as relief of tension is essential, and division of the salpingo-palatine fold of mucous membrane is important to secure this. After treatment should be simple, no cleansing on the palate or in nasal fossæ should be attemped. Feeding by mouth may be commenced at the end of twenty-four hours. The use of the protective is of great value in older children and adults. Of the eight cases, three healed primarily with no defects, one after a secondary suture of the uvula, one completely, save for a small anterior defect purposely left to preserve nutrition of flaps, two very slight defects barely admitting a probe, and one has a defect of the uvula.

W. L. B.

MEDICINE.

UNDER THE CHARGE OF JAMES STEWART, F. G. FINLEY, H. A. LAFLEUR AND W. F. HAMILTON.

McKenzie, R. Tait. "The Anatomical Basis for the Treatment of Scoliosis by Exercise."

Dr. R. Tait McKenzie, in a paper of this title, read before the College of Physicians of Philadelphia, said that in the infant spine there is but one curve, with the convexity backwards, and involving the total length. This curve is best seen in the sitting posture. With the assumption of the upright position a sharp lumbar curve makes its appearance, with the convexity forwards, and the anterior ligaments and psoas muscle are put on the stretch, as the pelvis is tilted forward while the erector spinæ is increased in size and power. This curve is followed by a curve in the upper dorsal region, compensating in character, while a third in the cervical region takes the same direction as the lumbar curve.

These three curves are physiological and are found in the normal adult spine. The integrity of these normal curves is protected against the onset of deformity by three lines of defense of increasing strength, by (1) The muscles forming an advanced mobile series of outposts that can be brought into service powerfully but intermittently; (2) The ligaments, more resistant but less mobile; and (3) The bones which

yield to the influence of deformity only after the other two lines of defense have been carried. After the deformity has altered the bony structure any treatment must be more or less cosmetic in character, aiming at concealment rather than at complete correction.

The muscles that may be used to act on the spinal column, he said, fall into three groups: (1) Antero-vertebral, consisting of psoas, longus colli, scallen and sterno-mastoid; (2) spino-scapular and humeral in two layers, trapezius, and latissimus dorsi, rhomboids, and levator scapulæ; (3) spinal, consisting of the two posterior serrati, superior and inferior, and the erector spinæ.

He pointed out the movements of the spine as flexion, extension, and side bending with rotation. Flexion, he said, is greatest in the lumbar and cervical regions; extension almost entirely in the lumbar and cervical regions, and side bending from the flexed position takes place in the dorsal and cervical regions, with rotation of the bodies of the vertebræ up to the convexity of the lateral curve. Side bending from the extended position of the spine, he explained, takes place in the lumbar region, and rotation of the vertebræ bodies to the concave side of the lateral curve. Rotation was said to be greatest in the cervical region, gradually disappearing through the dorsal. The most freely movable regions are abundantly provided with muscles, and treatment will be directed to the cultivation of them in groups or isolated. In the lumbar region, it was said, that the psoas can be made to act upon the bodies of the vertebræ through its attachment to the femur. The erector spinæ, in the lumbar region can be made to act on both sides at once, or on either one separately, to increase the concavity on the active side. In the dorsal region, the erector spinæ is made up largely of tendons; many of its strands are replaced by ligamentous bands. Action upon the dorsal spine will be obtained through the twisting action of the spino-scapular, and humeral group through traction on the dorsal spines with counter-traction of the pectoralis on the other side. Action can also be obtained by the unilateral development of the respiratory muscles, increasing the capacity of the thorax more particularly on the concave side. In the cervical region, the erector spinæ mass is much specialized and allows of movements in all directions, particularly rotation in which the deep muscles of the sub-occipital triangle may take part.

Dr. McKenzie in reply to discussion stated that the isolation of the muscles is a matter of practice. In many cases a marked amount of isolation could be brought about by starting with a simple movement by which large groups are employed which have a very indirect in-

fluence upon the movement desired. By care and attention it was possible to confine the exercises to one or two single muscles of the group.

PATHOLOGY.

UNDER THE CHARGE OF J. G. ADAMI.

WILLIAM J. ELSER. "A Study of Epidemic Cerebro-spinal Meningitis." *Jour. Med. Research,* Vol. xiv., p. 89, 1905.

The author studied one hundred and thirty cases of the diseases which occurred in New York. Of these cases he was able to isolate the diplococcus intra-cellularis in all but sixteen cases. Besides merely demonstrating the organism on cover glass preparations, made from the spinal fluid, the author obtained cultures of the diplococcus in 86 cases. E. finds that there is no difficulty in distinguishing the organism of epidemic meningitis from other organisms which resemble it. The points in its identification are, it can be fairly readily cultured, it is negative to Grams Stain, it never forms chains and it is feebly pathological to animals. Of 41 cases examined, the author was able to isolate the specific organisms from the blood in 10 cases. The organism too was isolated six times from the nose or throat in 22 patients. E. finds that the diplococcus disappears rather early from the nose and throat, as the positive results occurred during the first week.

Twenty-three of the cases came to autopsy, and in these five had acute sero-purulent, or purulent-pericarditis. This series of cases seems to indicate that pericarditis is a frequent complication of epidemic cerebro-spinal meningitis.

It was found that status lymphaticus was an important factor in determining the rapidly fatal issue in the disease, as it was present in one-fourth of the cases coming to autopsy.

HUGO RIBBERT. Monograph. "The Etiology of Cancer." (From the *Path. Inst. Bonn*), 1905.

Ribbert repeats his doctrine that cancer is only reproduced through the growth of its own elements, and that the spreading of cancer is due wholly to a multiplication of the cells in the original neoplasm. The first cells of a tumour, he holds, may be either embryonal rest or postembryonal aggregations of cells which have been separated from

their original site. Ribbert admits the similarity in appearance of certain granulomata with new growth, but finds no reason to support the parasitic theory, as the experimental transplantations of cancer can be explained on other and more solid grounds. R. also opposes the view taken by Kelling that the cancer cells themselves are the parasites, which gain entrance into the body from without. R. holds that all cancers have their origin in epithelial cells which have separated from their normal structure, and have lost their functional relation to their normal tissue. The separation of these epithelial cells results from an inflammatory (or other) change of the connective tissues about, which then withdraws the restraining influences of this tissue on the epithelial cells. These latter cells are now liberated to proliferate beyond their normal scope, and this is the beginning of the cancer. Not only can these cancer cells proliferate into the altered connective tissue, but they also acquire the property of advancing into normal fibrous tissue. R. holds that the alteration in the connective tissue also produces changes in the epithelial cells, so that these are of a more embryonic type. For this he prefers the name "ruckschlag" rather than metaplasia.

H. Wolferstan Thomas (McGill). "The Experimental Treatment of Trypanosomiasis in Animals. *Proceedings of the Royal Society,* 1905, Vol. 76, p. 589.

Of the various therapeutic agents which have been tried in cases of trypanosomiasis, arsenic and trypan red are the only ones exhibiting a marked influence on the parasites. However, it was found that sodium arseniate when injected subcutaneously produced sloughing and further, was very liable to produce untoward and toxic symptoms. Thomas obtained the best results with a compound of arsenic and aniline (meta-arsensaure anilid, atoxyl). In all his experiments he found the arsenic-aniline compound of best service, principally as it can be given in large doses over a length of time. The trypan red given either alone or combined with other drugs has a tendency to cause nephritis and hence must be used with caution. Thomas holds that the arsenic-aniline compound is indicated in human trypanosomiasis.

Society Proceedings.

MONTREAL MEDICO-CHIRURGICAL SOCIETY

The sixth regular meeting of the Society was held Friday evening, December 15th, 1905, Dr. F. R. England, President, in the Chair

LEUKAEMIA.

J. B. McConnell, M.D., and J. D. McLean, M.D., showed a living case of lympathic leukaemia. Dr. McConnel read the case report.

E. J. O'Connor, M. D., also presented a living case of leukaemia, this case being of the spleno-myelogenous type.

E. J. O'Connor, M.D.—With regard to the treatment. I have been giving this patient Arsenic in large doses, 12 drops three times a day. His general condition is improving and he thinks his abdomen has gone down about an inch and a half in circumference. This treatment is the only thing I could think of, and I would be very grateful for any suggestions.

F. R. England, M.D.—I cannot remember having seen a spleen as large as this before. I would like to ask if Dr. O'Connor had noticed any evidence of trouble in the bones, tenderness, etc. As to Dr. McConnell's case I am very much surprised that the patient was able to put in an appearance here to-night with only 25 per cent of haemoglobin. It seems to me remarkable.

E. J. O'Connor, M.D.—With regard to the bones, I have examined them very thoroughly and can find no evidence of tender spots anywhere; everything seems normal.

DEFICIENT HUMIDITY OF THE ATMOSPHERE AND ITS EFFECTS UPON THE RESPIRATORY TRACT.

T. A. Starkey, M.D.—This paper will be found on p. 180.

E. J. O'Connor, M.D.—I would like to ask what Dr. Starkey would advise beyond keeping the windows open for a reduction of this dryness in the house air. The windows cannot be left open all the time in winter. Would Dr. Starkey suggest that a pan of water be left in each room?

Lapthorn Smith, M.D.—As to personal experiences, asked for by Dr. Starkey, I think it would not be hard for us to give such for we constantly meet with them in our professional visits. It is my impression that this dryness in the atmosphere is limited to only one class of

society, that is, the rich. The working classes who form the bulk of the population live within a short radius of the kitchen stove on which all the cooking is done and consequently the atmosphere is supersaturated with moisture; those living in a flat still have their heat supplied from the kitchen stove; those in self-contained houses, or houses with two flats use a hall stove on which is invariably kept a kettle of water evaporating. The class using the old fashioned hot air furnace are fairly well supplied with moisture from a large evaporating pan inside of the casing of the furnace from which five or ten gallons of water are evaporated a day and carried with the air to all parts of the house. It would then seem that the expensive hot water furnaces of the rich are most responsible for this dryness in the air. One rich patient told me that all the members of her household were suffering from more or less discomfort in the nose and throat; and another feature was that the expensive furniture such as Japanese cabinets which had taken a workman a lifetime to glue together would after a series of explosions be found in a heap on the floor from the excessive dryness of the atmosphere. I advised her to have zinc reservoirs placed behind every radiator in the house and soon a change took place in the condition of affairs, but it took five gallons of water every day to replenish these pans. For myself I have taken a watering can and sprinkled the carpets before retiring at night when the atmosphere was very dry. It does not hurt them because they dry in a few minutes. I am a little surprised to hear that the outside air on frosty days has much moisture in it; I have always understood that with a temperature of ten to twenty below zero the air was devoid of moisture. The plan of keeping the windows open in severe weather is not practical as the danger of freezing the pipes is too great and even then the air though fresh is not moist.

G. P. Girdwood, M.D.—There is not doubt that the question of relative moisture is an important one: in the summer time when the temperature is warm we may get the moisture up as high as 90 per cent. and even full saturation, 100; but in winter time we get the moisture frozen out. It is not a question of absolute saturation but one of relative saturation of the atmosphere. For myself and my household we sleep with a good many of our windows open and have always a current of fresh air from the outside. But still when the temperature is raised it is a long way below saturation. Supposing the temperature to be below zero, when this is warmed you will get a saturation of about 30. One method of increasing the humidity in the house is to hang up wet sheets here and there. For my own part I would say that the dwellers in tents suffer

from none of these things. Another matter which Prof. Starkey did not touch upon and which Prof. Rutherford has suggested and that is the question of the amount of the radio-active matter in the atmosphere in particular places, and curiously enough he found that the radio-active matter is much more in houses than in the outside air and certainly it is a factor which will have to be taken into consideration before long.

A. H. Gordon, M.D.—I would like to ask what the relative amount of naso-pharyngeal involvement is in climates which are dry and climates which are moist. In a section of a country where there is a great amount of rainfall I found catarrhal troubles, both nasal and bronchial, very common and such cases almost invariably got better of their catarrhal condition on removing to a high altitude where supposedly the humidity of the atmosphere was a great deal less.

Wesley Mills, M.D.—It seems to me that before we get a final explanation of the condition caused by dryness, we must remember as has been pointed out that the mucous membrane is naturally moist and that a dry air acts much the same as an irritating gas, not chiefly directly, I think, but by reflex action, causing dilatation, probably; certainly in some stage dilatation of the blood vessels, so that we might put the result down to really the same final cause, as in the case of injurious gases, only dry air acts more slowly and takes a longer time to bring about a very decided result. The question that Dr. Gordon has asked is a very pertinent one because I have noticed that in places in which there is a great deal of rain catarrhs are very common. As to Dr. Hamilton's question with regard to nasal speech, it may be said that first of all, it is not as common in Great Britain as on this side of the Atlantic; secondly that while a certain proportion of cases may be accounted for by the condition of the mucous membrane, most of it is not any more than the higher pitch of American speech, to be explained by catarrh. Speech is largely determined by unconscious imitation and that begins very early. Perhaps it may be originally traced, as some have suggested, to the Plymouth fathers with their peculiar intonation; but however that may be, through many generations we have been imitators of a high pitched and more or less nasal speech; and it is becoming I think if anything more prevalent in Canada, whether that be due to proxity to United States or not. The conclusion I have come to is that the principal cause is not the condition of the membrane, but to the fact that we do not particularly dislike nasal speech and that very little attention is paid to elegant speech on this side of the water as compared with what is regarded as proper in educated persons in other countries, and that as

long as we remain so careless in regard to speech, so long for instance as children can pass through a college course speaking as they do and get degrees, we must have the conviction that musical and pleasing speech is not one of the subjects to which the people on this side of the Atlantic generally devote very much attention.

J. B. McConnell, M.D.—As to excessive dryness of the air in dwell-houses no doubt it is a very important hygienic defect and one which is largely accounted for the autumn catarrhal affections we meet with here. Undoubtedly people in cities suffer a great deal from improper heating, and coal gas is an important factor as well as the dryness, producing unwholesole condition. A great many houses are heated by coal stoves and some of them are often too large for the house and the draught key in the pipes is invariably kept closed so that a certain amount of gas is constantly escaping. The lighting of the houses with gas too is exceedingly injurious, it rapidly renders the air of a room unfit to breath unless it is large and well ventilated. A great work would be done by this Society if it made an effort to educate the public as to the hygienic heating and lighting of their houses. It would be a good thing if we had a superintendent of buildings who would look after this sort of thing and see that houses were built properly from a hygienic point of view especially in the poorer districts. A vast amount of illness will be escaped from in cities where the masses live in houses where perfect hygienic conditions prevail.

G. A. Brown, M.D.—I would like to ask Dr Starkey if he took into consideration the dust as an irritant; the air being rather dry these particles might all the more be floating around.

Dr. Birkett.—This paper of Dr. Starkey's is, I think, full of a great deal of interesting information, to those who are especially interested in the diseases of the upper respiratory tract. The view which Dr. Starkey puts forwards as to being the possible cause of rhinitis, either in its acute or chronic form, is to me a very acceptable one. I have always held that many affections of the nose and throat are undoubtedly due to a deficient humidity of the atmosphere, and Dr. Starkey has in this paper proved, I think, pretty conclusively that his theory is correct, and speaking from a practical standpoint, I have had the opportuuity of frequently applying the suggestion here made, and with good results; cases of acute and chronic rhino-pharyngitis, which have resisted the ordinary methods of treatment giving way by increasing the humidity of the atmosphere of the sleeping-room. I feel certain, therefore, that if we would direct our attention to this one point in particular, that many obstinate cases of this kind would show marked

signs of improvement. Personally, I feel indebted to Dr. Starkey for the interesting manner in which the subject has been brought to our notice.

R. A. Kerry, M.D.—Dr. Starkey's paper has brought forward a very important point, namely, the condition of chronic hyperæmia of the mucous membrane. As we all know the function of the mucous membrans is to supply both warmth and moisture to the air inspired. In the house, with its air so deficient in moisture, the mucous membrane is kept constantly in a hyperæmic condition to furnish sufficient moisture to the air inhaled; and on emerging into the air in winter time, this condition is still maintained as a relatively large amount of blood must pass to the parts to afford the heat necessary to warm the air. We have thus for many months a sort of vicious circle established, causing in course of time alteration of structure and in advance cases absorption of bone.

We all frequently have cases of tinnitus aurium under our charge, and the majorities of these are nothing but the result of processes instituted under conditions similar to those which Dr. Starkey has described, and showing in several cases atrophy of the membrane from the anterior nares right through to the tympanum.

Many of these cases become infectious, from the horrible œzenas down to the ordinary muco-purulent affection of the naso-pharyngeal tract, which is so often seen.. Considering how very common deficient hearing is, and that the altered mucous membrane affords a favourable means for entrance of various germs, the question of checking the spread of infection and affording pure air should be seriously taken up by the profession at large and urged upon the health authorities

T. A. Starkey, M.D.—With reference to the dust in the air this is a very important condition, but I think that the marked symptoms mentioned in the cases which I have described are not due to this, though certainly habits of living and the manner of conducting the household with reference to the dust problem have their effect upon the general health of the inmates. As to the combustion of coal gas, and gas escaping from furnaces, this is another important question, but rather a little outside of the matter which we have taken up. I may say that the bad condition of the atmosphere caused by the combustion of coal gas undoubtedly tells upon the children who gradually lose vitality and strength during the winter months. The Royal Sanitary Institute proposes to take up this whole question of ventilation and heating, including the combustion of coal gas.

I think Dr. Mills' answer as to the intonation of the speech of the

Americans generally, is quite true, it is a question entirely of habit as can be easily proved.

Regarding the prevalence of catarrh in moist climates, as Dr. Kerry's remarks show that the nasal mucous membrane attempts to regulate the moisture and warmth of the air before entering the lungs, and if you give it too much work or no work at all it is put out of gear, so to speak. In a very moist atmosphere the mucous membrane attempts to give off the necessary amount of moisture from the body to maintain the natural equilibrium and that is the reason why you get sponginess and swelling of the nasal mucous membrane under these conditions. Means to be adopted to get rid of this dryness in the atmosphere form a large question and various plans suggest themselves, for those who use hot water coils the only remedy practicable at present is to place pans containing water around the house, etc.; one thing is certain that the usual methods of procedure are nothing like sufficient, and it is not surprising, as has been remarked that five or six gallons of water should be taken up daily. With steam coils the difficulty could be got over in part by turning on a small tap and allowing the steam to escape. As to the hot water coils a special apparatus will have to be arranged where you get a sufficient amount of surface from which to evaporate the water; this is being talked of, but could not be generally adopted obviously for some time to come.

In any case, the suggestions I have made for supplying more moisture to the atmosphere in houses can only be considered as tentative. The whole question is a very large one, and we shall have to wait until the sanitary engineers and architects gets their heads together and evolve some practical scheme to overcome the difficulty.

As I have remarked previously, the Royal Sanitary Institute is going to take up the matter, and, being composed of the necessay experts, I fully expect that ere long a successful solution of the problem will be attained.

CHOREA.

Ridley Mackenzie, M.D.—Chorea in a child two years of age. This paper appears at page 179.

F. R. England, M. D.—I had a case some years ago of a child seven months old with endocarditis. Rheumatism is very common in children. There were no articular symptoms in this case and no chorea, but I looked upon it as rheumatic endocarditis.

LUNG STONES.

John McCrae, M.D.—I have here two "lung-stones," given me by Dr. F. R. England.

Lung stones are formed, sometimes in the bronchi, especially in cases of bronchiectasis, sometimes in the lung tissus, and sometimes in the bronchial glands; they consist of calcareous deposit or degeneration; when it occurs in the bronchial gland or lung tissue it may come through and be expectorated. Sometimes it causes that peculiar spasmodic pain which is among the Germans, called bronchial colic.

F. R. England, M.D.—These bronchial stones I received by mail from a patient who consulted me in September for a chronic and distressing cough. The patient went home and soon afterwards, during a severe fit of coughing expectorated this calcareous mass. He is a large man about 58 years of age, nothing definite could be made out on examination to explain the irritating and harrassing cough. I thought there was some arterio-sclerosis and suspected a possible thoracic aneurysm. Examination of the throat was negative. The cough has now practically left him, and his general condition is much improved.

FIBROIDS OF UTERUS.

F. R. England, M.D.—This specimen is a uterus showing multiple myo-fibromata, and is interesting in that it shows the three clinical varieties, the subserous, intramuscular and submucous growths, this last the largest and the one which caused the symptoms leading to removal of the organ. The patient, aged 35, nuliparous, has for the last 16 years suffered from dysmenorrhœa, and for the last four years from repeated hæmorrhages, and latterly the bleeding was controlled with a great deal of difficulty. Medicines had little or no effect, hysterectomy was therefore advised as the only means left for satisfactorily dealing with the case.

The ninth regular meeting of the Society was held Friday, 2nd February, 1906, Dr. F. G. Finley, Vice-President, in the Chair.

LIVING CASE OF CHOLELITHIASIS WITH FAT NECROSIS.

J. Alex. Hutchison, M.D., presented this living case.

PANCREATITIS.

J. M. Elder, M.D.—Pancreatitis, from a surgical point of view, with reports of some cases.

John McCrae, M.D.—There are three questions which seem to me of interest to ask. The first is with reference to the glycosuria. Is it

not so that glycosuria occurs when the islands of Langerhans are affected, and is absent if they are not?

Is fat necrosis really a dangerous condition *per se*. Is it not so that fat necrosis can exist for a considerable time without microscopical evidence of its causing any trouble.

A third point is the use of early operation in pancreatitis. The pancreatic juice apparently has no power against living functioning tissue, *e.g.*, the duodenum does not necrose though pancreatic juice flows over it, and the pancreas itself does not necrose. At post mortem pancreatic necrosis begins almost immediately. Here it would seem then that early operation opens up the pancreas and permits drainage, that is, one operates before the tissue dies and recovery takes place. Once started this necrosis is cumulative and will go on until the whole organ is practically destroyed. Is not the usefulness of early operation that it prevents the destruction of tissue becoming complete, and the tissue from becoming liable to necrotic change?

J. Alex. Hutchison, M.D.—To those not particularly interested in this subject it may be said that surgical literature to-day is abounding in descriptions of the various clinical, pathological and bacteriological conditions developing out of this subject. A number of noted men during the past three or four years have written very able articles upon it, particularly in the English speaking world, and more especially Mr. Mayo Robson, whose address before the Canadian Medical Association last year was on this subject. In Dr. Elder's case, while agreeing in many respects with my own, one can see some very definite differences. Dr. Elder operated for possible obstruction, I operated for a condition of general peritonitis involving the upper part of the abdomen, the cause of which was very uncertain, possibly gall stones or appendicitis, from the history of a previous attack for which she was treated in the Royal Victoria Hospital two years before. The pain was never localised, being present at times low down in the left lumbar region and again over the gall bladder. The onset in both cases was much the same, very severe, but the peculiar labour-like pains in my case were certainly unique. The fact of both cases getting well I think is due to the early operation and drainage. However, Robson speaks of the benefit which comes of simple cholelithotomy, the calculi being frequently the cause of the obstructive condition. The common bile duct can be obstructed often without producing any pancreatic change, as was shown in a recent case under my care where I operated for gall stones, removing one stone from the ampulla of Vater through an incision in the duodenum after the method originally suggested by McBur-

ney. It was shown that there was a common canal and that the stone could easily have been the cause for obstruction of the pancreatic duct. We were both very fortunate in having had recoveries. With the limited number of cases which have come under observation in Montreal it is curious that these two should have presented themselves in the same ward at about the same time.

Ridley MacKenzie, M.D.—I have known Dr. Hutchison's patient for some time, as she has been at the hospital quite frequently, and I do not think I ever saw a more desperate case after operation.

E. W. Archibald, M.D.—Dr. Elder is to be congratulated upon giving us such a good *résumé* of a subject that is interesting the medical world very strongly at this time. In my own mind there is a doubt whether the pendulum is not swinging a little too far in the direction of ascribing pancreatic affections to primary gall bladder trouble. It seems to me that not infrequently the order of things is the reverse. In a case of acute hæmorrhagic pancreatitis which I reported before this Society, it was remarkable that while every clinical symptom pointed to gall bladder trouble, that is, common duct obstruction, such was absolutely not the case, except in so far as it was secondary to swelling of the head of the pancreas. This man had had five attacks in previous years, all supposed to be from gall bladder. Opie's theory, which is so attractive because it is so mechanical, is very apt to make us forget that there exists not infrequently a primary pancreatitis, to which a secondary gall bladder trouble may be superadded. The quotation from the article by Thayer recalls a late paper by von Mikulicz in which he referred to a case operated on in Boston. It was one of very acute pancreatitis in which operation was undertaken very early; a large pancreas was found and multiple incisions of its capsule were made, with recovery. Of course one such means little; at the same time it suggests the possibility that even these very acute cases which are supposed to be inoperable may quite possibly, by early operation, be saved.

J. M. Elder, M.D.—As to all cases of pancreatitis being due to cholelithiasis, I certainly did not intend to make that statement. For example, I do not think there is any connexion at all between this and the acute hæmorrhagic form. What I intended to state was that, as Robson shows, many of the cases of so-called catarrhal jaundice are really cases of chronic pancreatitis to which the jaundice is secondary; and that infective pancreatitis is often a sequel to infective cholecystitis or cholangitis. As to fat necrosis, I quite agree that there is nothing essentially dangerous in fat necrosis; but the danger is that where you get necrosis or digestion of fat, you are never sure that it will always

stop with the fat, and that it may go on to digestion (necrosis) of the walls of the alimentary tract; or that, short of that, it may act as a direct poison to the muscular fibres of the bowels, causing paresis and symptoms of intestinal obstruction. It is no unusual thing to find after operations upon the stomach, where the pancreas may have been accidentally wounded at operation, that the whole line of sutures has been digested away, with fatal result, of course. As regards fat necrosis, I would refer to Bergman's System of Surgery, Vol. IV, p. 720. Fat necrosis is most frequently seen in connexion with hæmorrhagic pancreatitis, not in the infective form where one would expect to get it most often, because here you have tissues lowered in their resisting power by suppuration.

"AUTOMOBILE FRACTURE."

E. W. Archibald, M.D., presented the notes on this condition.

Dr. D. A. Shirres presented two specimens of cerebellar tumours, and accompanied them by a demonstration.

F. G. Finley, M.D.—I would like to add a word of appreciation of the very clear way Dr. Shirres has brought before us the diagnosis of intra- and extra-cerebellar tumours. Like all differential tables they are subject to exceptions and it is of course easier on paper than in actual practice to come to a diagnosis in many of these cases, and there are some where one is in doubt as to the location. I have found difficulty at times in determining whether a tumour is in the frontal region or cerebellar. I would like to ask Dr. Shirres as to whether the auditory nerve was tested with the high-pitched tuning forks; I have found evidence of nerve deafness only obtainable with the high pitched forks in Meniere's disease. As to polyuria, Futcher, of Baltimore, has recently called attention to a fact which has been known for a long time, that some cases of diabetes insipidus owe their origin to cerebral syphilis.

M. Lauterman, M.D. I would like to ask Dr. Shirres if he has any record of the examination of urine in these cases.

My reason for asking, is that I have a case under observation at present which exhibits most of the symptoms described by Dr. Shirres as being present in his cases, *i.e.*, falling to one side, vomiting and optic atrophy, I am satisfied that there is a cerebellar lesion, most likely a gumma; I may say that my diagnosis in that respect has been confirmed by two of my confreres who saw the case with me in consultation at different times, as well as by the so-called therapeutic test, as the pa-

tient has improved very considerably during the ten weeks he has been on anti-specific treatment. The especially interesting feature of this case was that when I first saw him, the urine of which he voided from 175 to 250 ozs. daily, contained sugar, as improvement took place this symptom disappeared, so that the urine is now entirely free from sugar, although, as previously mentioned, very much increased in quantity. I would therefore be very much interested in learning if there has at any time been any evidence of glycosuria in any of Dr. Shirres cases.

The tenth regular meeting of the Society was held Friday evening, February 16th, 1906, Dr. F. R. England, President, in the Chair.

A CURE FOR TUBERCULOSIS.

G. A. Brown, M.D., read the paper of the evening. Dr. Brown gave full details of his method of treating tuberculosis by the injection of iodoform into the system. This study he had begun in 1894, and up to the present he had treated quite a number of cases of pulmonary, laryngeal, cutaneous and joint tuberculosis with remarkable results. Dr. Brown illustrated his paper with charts showing the results of the injection on the temperature, urine, blood and blood pressure, also two diagrams showing the condition of the larynx before and after treatment in the case seen by Dr. Birkett.

In connexion with this paper Dr. Brown exhibited eight of his cases before the Society; these were:

1. A woman, aged 34, case of tubercular lupus, of nine years standing. Patient had been treated at various skin clinics and had also undergone a course of Finsen light treatment, all with no benefit. After the first injection there was very marked improvement, until now the skin has become soft and pliable. The tubercles are seen to undergo fatty necrosis and to dry up, and the part gradually to become white and skin velvety.

2. Tubercular ulcers of the shoulder and upper arm, all healed.

3. Lesion of the larynx. Came under observation last June with tubercular laryngitis; the lesion is practically almost cleared out.

4. Tubercular adenitis.. Child. When she came under observation there were on both sides masses the size of one's fists. After injection the diminution has become most marked and now but little enlargement remains, for one could not expect complete subsidence in such badly diseased glands.

5. Young man, pulmonary tuberculosis, all the family died of it. Patient has had but one injection, but the improvement from this has been most marked. There was constant cough for a year, spitting blood and hæmorrhage for one week. After the injection the blood stopped; there is now only a little cough in the mornings and the appetite has greatly improved.

6. Woman with pulmonary tuberculosis; softening in left apex. Four months after treatment she was in perfect health.

7. Woman, granuloma of both cords, could not talk or eat; patient in a very wretched condition. Now is able to talk, eats well and shows wonderful improvement in every way. Expectoration has ceased, and only coughs in morning.

8. Tuberculosis of the foot. Complete cure.

H. S. Birkett, M.D.—With regard to Case No. 3, I saw this patient about five weeks ago and was asked for a diagnosis. The objective symptoms were those of a tubercular condition of the larynx. There was a definite granuloma occupying the greater portion of the left vocal cord on its upper surface, and posterior to that and just in front of the left arytenoid cartilage was a superficial ulceration. The appearance of the larynx was anæmic, whereas the trachea showed a marked hyperæmia, which is so suggestive of tuberculosis. I did not see this patient again until to-day, and I must say the change is a marked one. The granuloma, which was almost equal to a small pea, is probably now the size of a millet seed, the superficial ulceration has quite disappeared, though there is still ulceration occupying the inner surface of the left vocal cord and the conditions are yet those of a definite tuberculosis, but which have certainly undergone very marked modifications.

H. A. Lafleur, M.D.—I am sure we are very much indebted to Dr. Brown for taking this trouble in bringing these cases before us and his paper shows evidence of a great deal of work. The question is whether one can subscribe entirely to his views, particularly as regards his results. One would like to know a little more detail of the history of the pulmonary cases. Dr. Brown mentioned a cure after four months in a case in which softening had occurred. It is generally accepted in these cases that there is a very long process of repair, and I doubt whether in real softening one could possibly get well in so short a space of time as four months. I have seen one pulmonary case where cure occurred in four months but there was no softening at all, that is no tuberculosis of the second stage merely an apex rale with many tubercle bacilli in the

sputa. Moreover in a case that has had softening, after it is supposed to be cured there ought to be some indications of the scar; here there is a little rough breathing under the clavicle but that is all. Then again I find the patient has a temperature of 99. Now we are accustomed to think of even small elevations of temperature as indicating activity, so that I think it is certainly an unjustifiable inference that if this patient has had tuberculosis and still has a temperature of 99, that she can be considered cured. Patients with this temperature in sanatoria are not even allowed to go about. I would like to ask if the expectoration was definitely proved to be tuberculous, that is, if tubercle bacilli were found in the sputum. As to a case being cured after four months, I think that is a little premature; it may be an arrested case. At least two years should elapse with no recurrence before one can look on the case as cured. And even then recurrences are not infrequent.

A. J. Richer, M.D.—I would like to endorse the views given out by Dr. Lafleur with regard to the word cure in these cases. It has been said that a man is cured of pulmonary tuberculosis after he has been dead a few years. We accept the word cure in lesions of pulmonary tuberculosis after we have found the evidence on the post mortem table. We often confuse the terms "arrested disease" and "cured." I may add, however, that though the antiseptic treatment of tuberculosis, especially with iodoform and iodine, is certainly no new thing, yet, there is no doubt that Dr. Brown has applied these in a new way after lengthy and arduous work, and he has been able to find a method whereby iodine may be introduced into the system in such a manner as not to cause poisoning in any form, that is, anæmia or lesions of the nervous system, and induced "arrest" or "cure" of the tuberculous lesions present he has done a great work. If he can prove this there is no doubt it will mark a very definite advance in the treatment of tuberculosis.

Wesley Mills, M.D.—I am under a similarly strong impulse like to the Englishman who, on seeing a man drowning, exclaimed, "Oh, that I had been introduced to him that I might save him." I want to cry out: "Oh, that I were a practitioner! that I might claim the right to say something." I confess I do not sympathize with this extreme caution in regard to this work. It is true we did hear of these remedies long ago, and perhaps wrote the names of them down in our note books as students, and speedily forgot them. But here is a man who has shown results of which, if a surgeon had effected them, you would have marvelled. I think Dr. Brown is to be congratulated: and even suppose that everything one could possibly desire

is not attained, yet he has taken a remedy, the mere existence of which was all we knew, and he has made pactical applications of it and has placed the cases before us. The patients themselves tell their own story. Dr. Brown is certainly to be congratulated.

J. B. McConnell, M.D.—Up to the present time, as far as we know, there is no recognized cure for consumption, and I am sure it would mark a very great advance in medicine if one of our members were to be instrumental in giving us one. About one percent of tuberculous cases recovered one hunded years ago; by modern methods, which we know are largely hygienic, and work along the lines of fortifying the system in order to overcome the tuberculous process—which has such a very great tendency to healing in itself—we now have a very much larger percentage of recoveries, and improvement, ranging from 25 to 75 per cent, but we are still far from having such control of the disease as Dr. Brown believes we have in iodoform. I certainly did not expect that it was one of the old remedies we were to hear of tonight. We know that iodoform and iodine are of value. The iodide of iron has been used in strumous conditions for decades. In my early years of practice iodoform was the only remedy that was supposed to be of any use in tubercular meningitis, and the virtue of cod-liver oil in tuberculosis was supposed to be due to the iodine it contained. Dr Brown has apparently shown some good results in his new method of using iodoform: but I think that we would be asking too much of him to expect that he would get absolute cures. I think that if he hasbrought before us a method which tends to cure, and produces such marked improvement as has been shown in the cases presented this evening, it certainly will be a great gain. The cases we have seen here tonight are not typical of the phthisical class that we see sometimes. They are mostly florid, and healthy-looking, subjects, and therefore would likey respond any approved method of treatment. We would need to have much further experience with the method before we could regard it as a cure. The action of iodine we know is tonic and alterative, and we generally use it for the dissolving of inflammatory thickenings, and glandular enlargements. A cure in phthisis is brought about largely through the production of fibrous or cicatricial tissue about the diseased focus. Would not iodine tend to lessen this conservative process? And the fatty degeneration which Dr. Brown says occurs so speedily after the use of the iodoform if the bacilli are not at the same time destroyed, might it not result in their dissemination, as occurs sometimes after the use of tuberculin. In the adenitis case there is certainly a marked improvement, but I have seen a like result from iodine, as we ordinarily use it, combined with a general building-up treatment. We need much

more evidence before we can regard potassium, or sodium iodide,—which is the condition in which they would reach the tissues whether iodine or iodoform was used—as a specific, unless it can be proven that, besides their alterative and germicidal value, they have specific virtues not hitherto recognized.

G. A. Brown, M.D.—With regard to the bacilli being found in the sputum, I might say that it was examined by Dr. Williams and reported by him to contain numerous tubercle bacilli. Here the rise of temperature might be accounted for by the excitement coming here, as there has been no temperature for some time. One must appreciate the point in following these cases out, that there was a definite action every time after the injection. One saw these little fatty masses appearing in the tubercles, and when they ended the tissue would contract and whiten out as scar tissue. Consequently, if one pushed the drug long enough one must remove all the tubercular tissue. Here is a man with a tubercular laryngitis doing his work, the larynx is healing, contracting out and he is in good health. In the intervals between the injections, iodine in water and iron are administered: the latter is taken up quickly, they start right away to eat well and the skin becomes velvety. As to the action of iodoform, I do not think this has been rightly appreciated. In the reports one usually reads, it has been supposed to be due to the decomposition of the iodoform and is a local action of the iodine. The true action of iodoform has not been recognized: this definite action on the tubercle, in which it undergoes fatty degeneration is absorbed, and becomes scar tissue is constitutional. The important point is that most of those people have got well here in the city; they are going around doing their work. Of course it is bound to take time in extensive softening or even fairly marked softening, but the result is there. In Mrs. K.'s case there was granuloma of larynx and very marked softening; she could not eat and could not talk; that was a year ago. If one realizes the reaction which takes place, that a certain definite thing must occur, consequently, when the case is cured, or apparently so, if you are not sure of it; you can continue time and again until there is no doubt that every tubercle in the body must be eradicated. The same definite reaction occurred in this lupus of the face after every injection, and it must come to a a definite successful conclusion in time.

APPENDICITIS SIMULATING TUBAL PREGNANCY.

A. Lapthorn Smith, M.D., read the report of this case.

HAMILTON MEDICAL SOCIETY.

The regular monthly meeting of the Hamilton Medical Society was held on the 7th February, the President, Dr. Olmsted, in the Chair. After routine business was transacted, the following programme was presented:

1—Pathological Specimen, Hour Glass Stomach; I. Olmsted.
2—Deciduoma Malignum; D. G. Storms.
3—Epidemic Jaundice; Dr. Addison, St. George; Dr. McGregor, Waterdown.
4—Report of Case; Dr. Griffin.
5—Acute Articular Rheumatism; Dr. G. S. Glassco.

Exhibition of Pathological Specimens.

The specimen of hour glass stomach shown by Dr. Olmsted was a comparatively rare condition, of which not many are reported. It showed *posteriorly* a cicatrix of an old ulcer.

The case reported by Dr. Storms was that of a woman who, in her ninth confinement, had several profuse hæmorrhages—which led to a diagnosis of leciduoma malignum being made. The following history was given:—

Woman, aged 42, nine children, convulsions with three of them—marked albuminuria. Twenty-three years ago had a ventral hernia in which the uterus became prolapsed through the abdominal recti, and in the erect position hung so low as to turn the cervix nearly vertical and to interfere with walking. Labour came on September 18th, 1905, and was extremely difficult, lasting four days. The uterus was in such a position that the handles of the long forceps when locked, were within the vulva, out of sight. Recovery was perfect till the 10th day, when a profuse hæmorrhage occurred, which blanched the patient. Ten days later a second hæmorrhage occurred which left her helpless. Scrapings were then taken from the uterus and a diagnosis of malignancy was made.

Operation, October 18th.—Hysterectomy by abdominal route. Recovery perfect, except for a phlebitis which affected both legs successively. Diagnosis was established on the following points:—

(1) Hæmorrhage occurring late after the confinement, and without other obvious cause.

(2) Suddenness of hæmorrhage.

(3) Cachectic appearance of patient.

(4) Examination of uterus, and microscopic examination of scrapings.

A paper was read by Dr. Addison of St. George, Ont., on "Epidemic Jaundice."

This disease has been very prevalent in this part of Ontario during the last few months, nearly every practitioner reporting cases.

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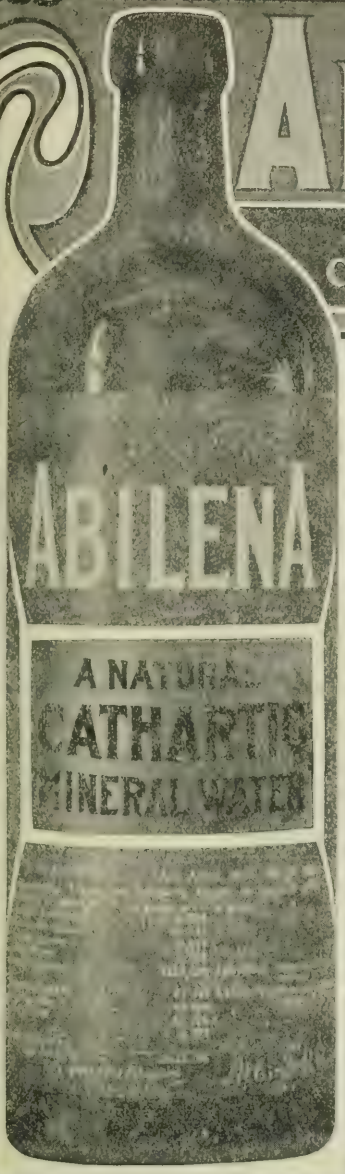

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Tonsillitis. By Charles J. Drueck, M.D., Chicago, Ill.—Tonsillitis is an affection which every physician is constantly called to treat, and in which the chief sympton that brings the patient to us is pain, especially on swallowing. The cause of this pain is manifest on a little inquiry into the physiology of the tonsil.

The tonsil itself is composed of lymph adenoid tissue, which is covered with stratified epithelium. On the surface are twelve or fifteen openings (lacunæ), which are covered with mucous membrane and lead into the tonsils. There are the follicles of the mucous glands which are numerous in the lacunæ. In the connective tissue structure around these lacunæ are numerous small lymphatic glands which make up the body of the tonsil.

The tonsil is principally concerned in deglutition. By means of the constrictors of the pharynx and the tongue the bolus is propelled toward the esophagus, and in doing so it must brush against the sides of the tonsil. The lacunæ thus squeezed pour out the mucin they contain, which lubricates the bolus and assists its passage without friction.

Let us suppose infection enters at the follicular openings. It immediately finds its way to the bottom of the lacunæ and is deeply seated in the tonsil. The numerous lymphatics try to gather it up, and in so doing become loaded

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and the whole tissue congested. The first effect of this inflammation is a venous engorgement, which prevents the proper function of the follicles. More mucin is not expelled and what is formed is shut up. Thus the surface of the tonsil becomes dry and red. Friction occurs whenever deglutition is attempted with the well known effect—a sharp lancinating pain. The intensity of the pain is in relation to the congestion, and hence dryness and roughness of the tonsil.

Treatment.—In the treatment of tonsilitis it is well to remember that this disease is at first only a local disturbance, and if promptly and efficiently treated will remain so. The systematic symptoms—fever, headache, etc.—only develop when there is considerable infection taken up; therefore the following course should be instituted early in the case. The first indication is to increase local circulation, and the best therapeutic agent is heat. In the first place confine the patient as much as possible to the house. Children should be put in bed. By staying indoors the patient breathes warm air only; usually free from dust and other irritating substances. The external application of the hot water bag greatly increases the venous circulation and so relieves the congestion, as does also the drinking of hot water. This drinking bathes the parts as well as adding a large amount of water to the bowels and so increases the action of both bowels and kidneys. This washes out the infection as it is taken up by the system. This drinking of water also increases the arterial tension which prevents stasis.

Local Treatment.—A local remedy must fill two requirements—a detergent antiseptic and a degree of permanency of effect. Many of the remedies are antiseptic, but they are not exosmotic enough to increase the circulation,

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or else their effect is too transient and their use tires the patient. Locally I have grown to use but one remedy, and that is Glyco-Thymoline. I prescribe equal parts of Glyco-Thymoline and water to be used in an atomizer. I get better results with this than anything else I have used. I always use it in an atomizer because gargling is necessarily painful, while a spray is not. Glyco-Thymoline promptly relieves the dry congested condition, and by adhering to the tonsil protects it from external irritation. Its anodyne effect is immediate and lasting. I instruct my patients to use it frequently, and because it is pleasant and its action prompt I find that they need no other instruction, but use it thoroughly. As Glyco-Thymoline is non-poisonous, it makes no difference as to how much is swallowed and its action does not upset the stomach, but tends rather to assist the destruction of any of the plugs that may be swallowed.

I find by this method of treatment that my cases are nearly all cured in twenty-four to thirty-six hours; that I need no other medicament at all, because the system does not become clogged with toxines.

I report below two cases, not for their individuality, but because their prototypes are constantly occurring to every physician.

Baby J., child six years old, had been sick for two days, and the previous day the mother had seen sore throat and treated it with salt, vinegar, etc., to which the child rebelled. When seen, I put child on spray of equal parts Glyco-Thymoline and hot water, and allowed sipping of hot soups and liquids; advised use of spray every half to one hour. Next morning mother telephoned I need not come as the child was perfectly well.

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Neuralgias from Alcohol and Opium Excesses.—A recent number of "The Quarterly Journal of Inebriety," published under the auspices of the American Association for the Study and Cure of Inebriates, Hartford, Conn., U.S.A., says—"Antikamnia Tablets are one of the best remedies and are very valuable as a mild narcotic in neuralgias from alcohol and opium excesses. We have used them with best results." "The Edinburgh Medical Journal" (Scotland) says regarding Antikamnia: "In doses of one or two tablets, it appears to act as a speedy and effective antipyretic and analgesic." "The Medical Annual," London, Eng., says: "Our attention was first called to this pain reliever by an American physician whom we saw in consultation regarding one of his patients who suffered from locomotor ataxia. He told us that nothing had relieved the lightning pains so well as antikamnia tablets, which at that time were practically unknown in England. We have since used them repeatedly for the purpose of removing pain, with most satisfactory results. The average adult dose is two tablets, which may be repeated every two or three hours without fear of unpleasant symptoms."

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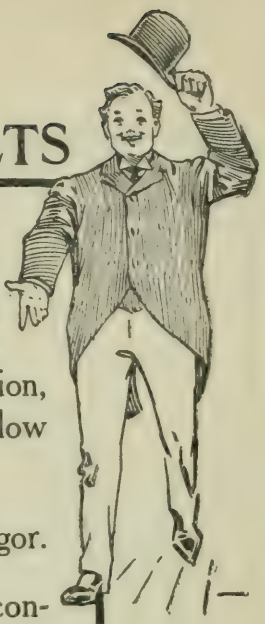

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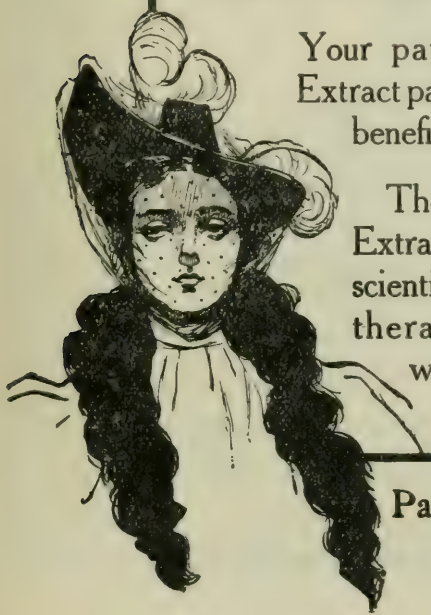

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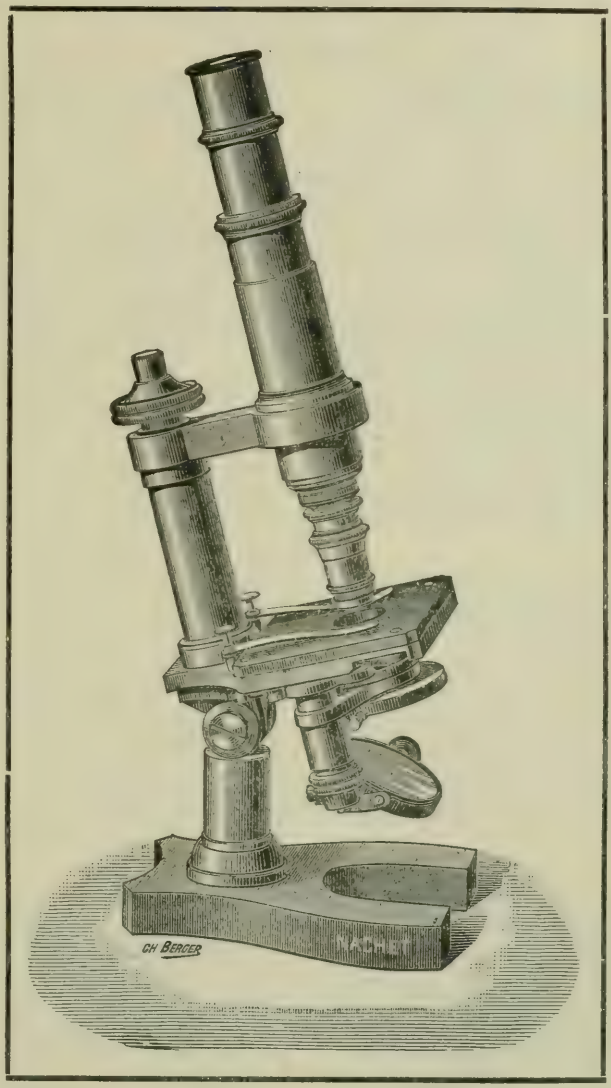

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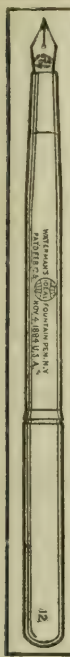

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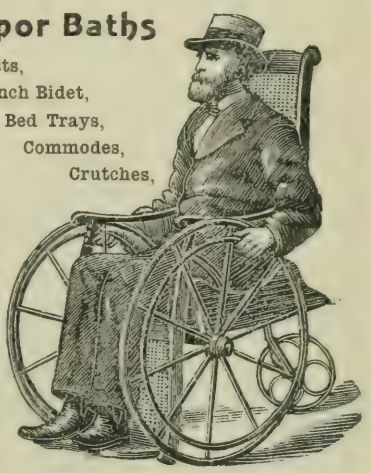

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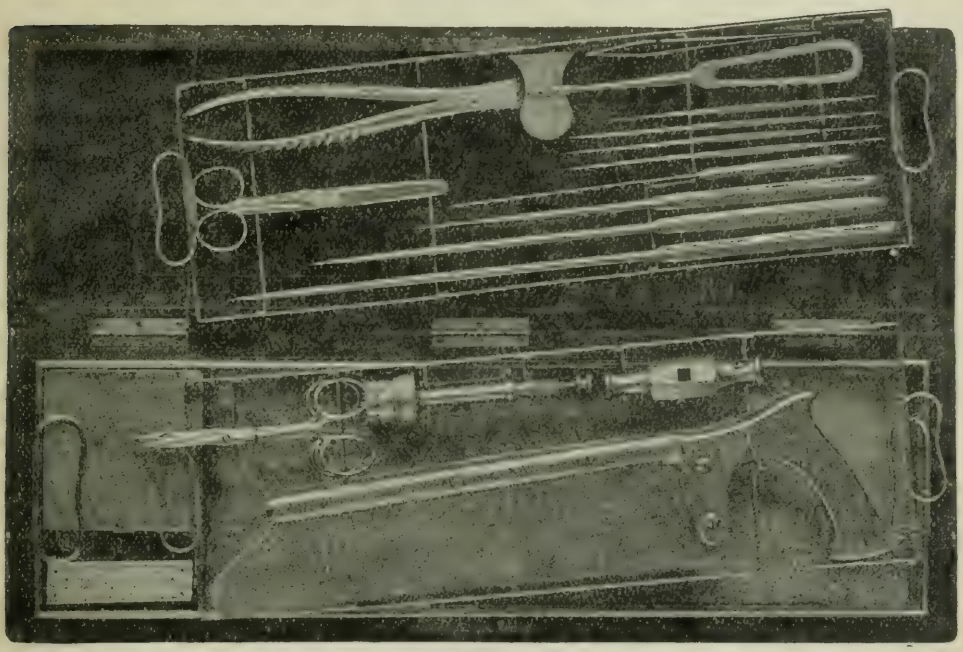

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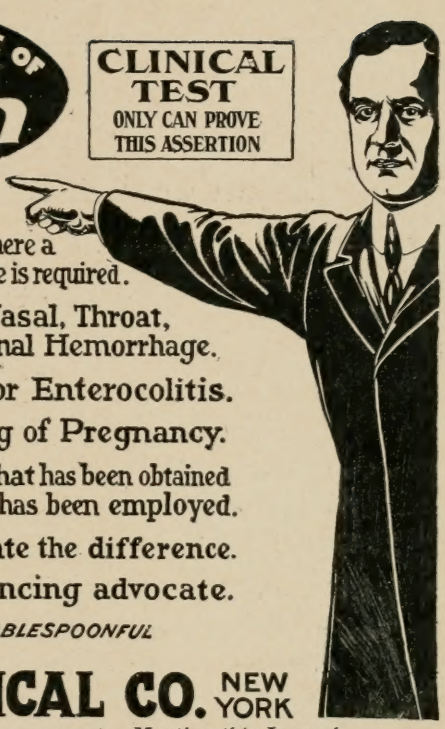

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